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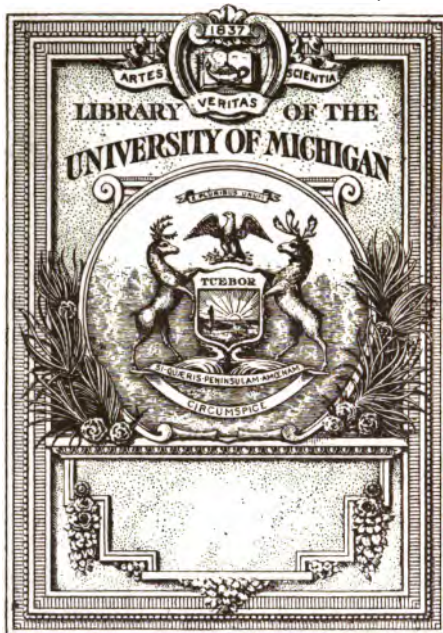
THE PROBLEM OF RESTORATION;  
A CLINICAL STUDY

BY  
GERTHA WILLIAMS

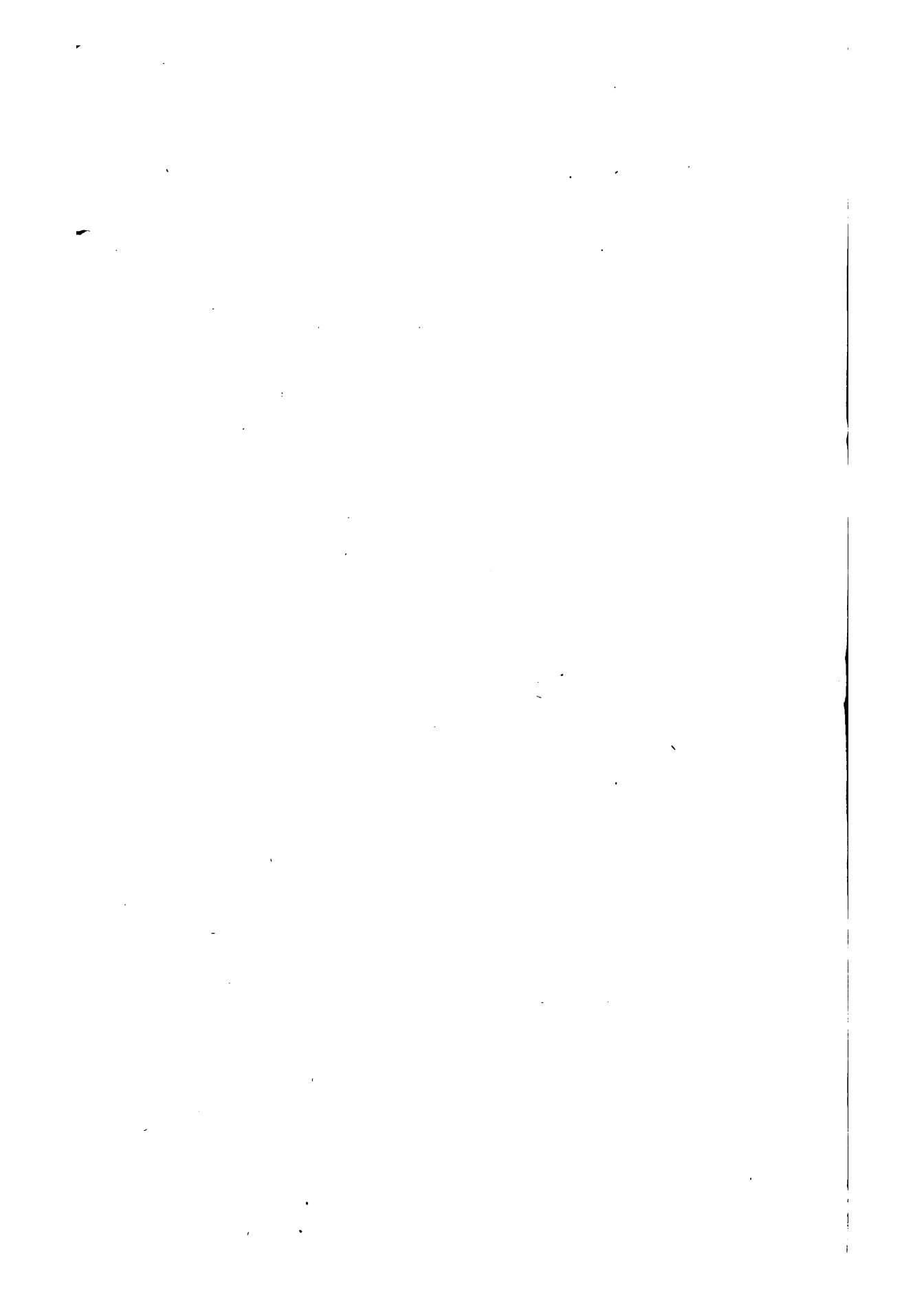
A THESIS

PRESENTED TO THE FACULTY OF THE GRADUATE SCHOOL IN  
PARTIAL FULFILMENT OF THE REQUIREMENTS FOR  
THE DEGREE OF DOCTOR OF PHILOSOPHY

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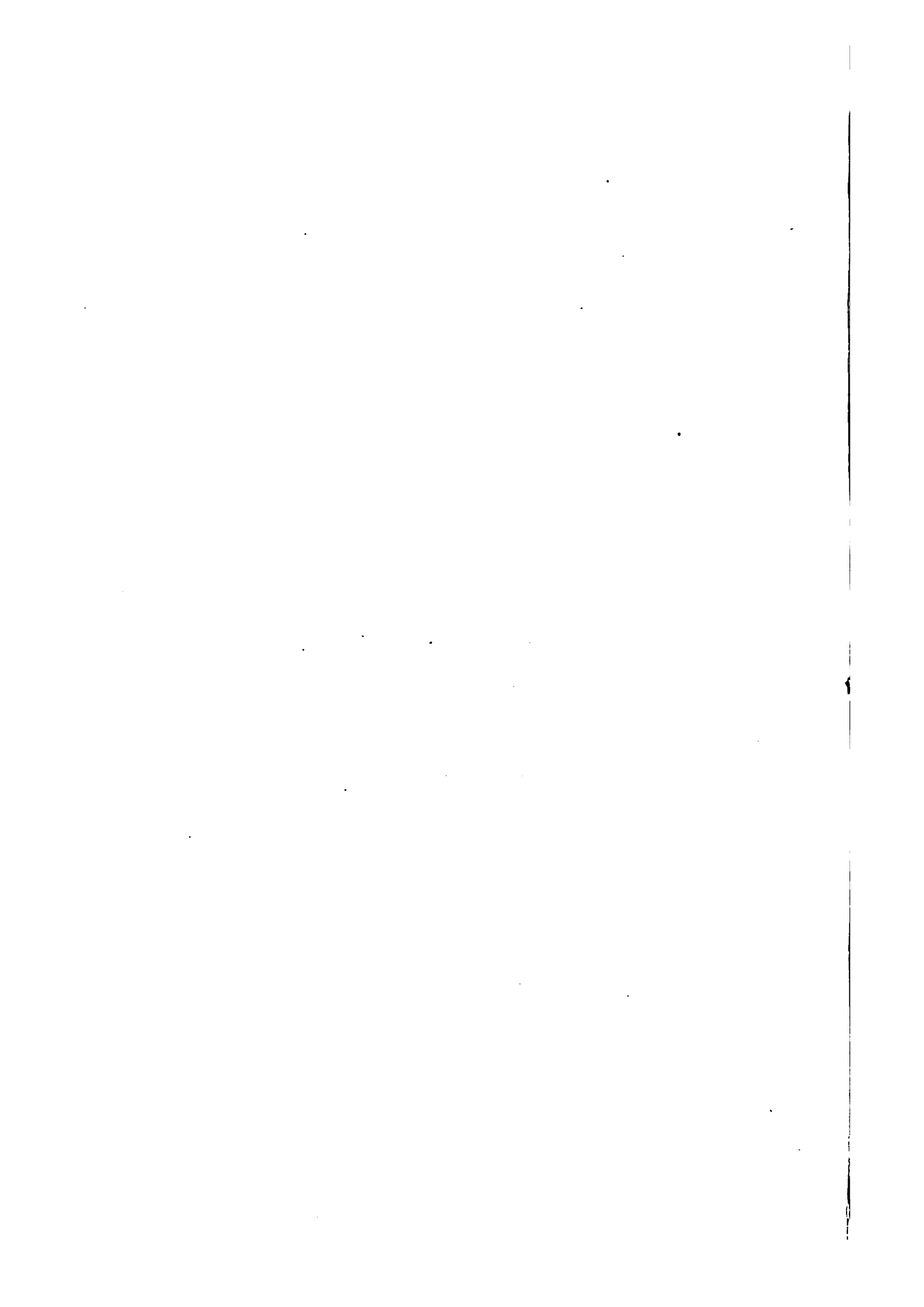
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## INTRODUCTION

A number of different meanings are possible for the word "restoration." One condition is implied by all these definitions. The present status of the child is one of retardation, either physical, pedagogical or social. In addition the word restoration implies that the child is to be restored to something. Probably in the more common use of the word the child is to be restored to the grade in school to which he belongs according to his chronological age. To this definition of the word I have objections. The child's ability or inability to get along in school I consider an excellent single test of his mentality. School life is the normal life for a child of school age and inability to get along in that environment is an important point against the child. But to hold the child to the standard of completing one school grade a year makes at least one-third of the school children, according to the investigations of Mr. Leonard Ayres, retarded and under present school conditions not restorable. This makes this use of the word "restoration" of no practical value. A pedagogical retardation of one or even of two years, while it throws an interesting light on our school problems, is not necessarily a serious retardation from the social standpoint. So I am not demanding of a restoration case that it be possible to restore the child to grade but rather that it must be possible by some kind of special treatment to bring the child up to the level of social competency, to prepare him to lead a useful life in society. His rate of development may be slower than that of the average child but his development must reach a point where it is possible for him to live a normal life in society. The special treatment to be given the child may be physical or it may be educational.

The question immediately arises, "What standard can be used to determine whether the child can live a useful life in society?" I have used the standard set by departments of compulsory education, that a child must satisfactorily complete the sixth grade in school. I use the word "satisfactorily" advisedly. To satisfactorily complete the sixth grade does not mean that the child is promoted "on age," nor that he is pushed along the educational highway, nor that he is sixth grade level in some things and the second or third in others. To satisfactorily complete the sixth grade he must have attained the performance

level of a seventh grade pupil. Some subjects may be better than others of course and some mental qualities better than others but his general level must be that of a seventh grade pupil. Nor would I consider that a child reaching the seventh grade level of proficiency entirely under special class conditions had satisfactorily completed the sixth grade. Environment under special class conditions is so favorable as to constitute a kind of social segregation and so is not a satisfactory test of a child's ability to maintain his place in the world. So while special class is a legitimate means of restoring a child, his residence in special class must not be permanent. With the help given by the individual instruction in the special class he must be made capable of making satisfactory school progress under regular grade conditions, reaching the seventh grade level by the time he is sixteen.

To determine whether a given child can reach the general level of a seventh grade pupil before the age of sixteen means careful study of the child over a long period of time. The twenty-eight cases included in this thesis are the members of the restoration classes conducted by the Psychological Department of the University of Pennsylvania for two successive years. Twenty-seven of these cases have been under my direct observation for five and a half hours a day for a period of six weeks. All of the cases have had at least one examination at the Psychological Clinic and in most cases more than one. The Social Service Department has investigated home and school conditions. Even with so thorough a study, I am not able to reach a decision in every case but have to label some of the cases still "doubtful."

I will take up briefly the class organization, selection of children, etc. in order that the kind of pedagogic treatment given each child may be understood.

The restoration class of the Psychology Department of the University of Pennsylvania serves a twofold purpose. There is *Purpose of Restoration Class* the practical purpose of teacher training, of preparing teachers who come to the summer session of the University to conduct classes for backward children. In this purpose of the class I was not directly interested. The other purpose of the class is a scientific one, to investigate mental development in a typical case especially with a view to correct diagnosis and prognosis. In this sense the restoration class is a progressive psychological experiment. It is this purpose of the restoration class which is of special interest to me in this thesis.

The twenty-eight cases comprising the personnel of the restoration *Selection* class were selected from the records of the cases studied by *of* the Psychological Clinic, a record including over two thousand cases. Several factors determined the selection of the children. The most important factor was the mental status of the child. The children selected were all children for whom from the clinical examination, school report, family history, etc. restoration was considered possible. Of course the prognosis was not equally favorable in all cases. We were more doubtful of the ultimate restoration in some cases than in others. Distance from the University was also a factor in selection. We preferred cases who were either within walking distance of the University or who could reach the University on one car-line without transferring. In the case of the child where the prognosis was very favorable distance was not considered. In some cases the University paid the car-fare of the child or even sent a social worker for the child and to take it home. Age was also a factor. The class was limited to preadolescent boys and girls and cases under seven were not usually considered. The Department does not believe that the same methods of instruction and discipline are desirable for preadolescent and adolescent children and for this reason adolescent children were excluded from the class. Children under seven were excluded because it was desirable for class activities to have as homogeneous a group as possible.

From the two thousand Clinic records about fifty cases were selected for the class of each year, who met the qualifications as to mental status, age and distance from the University. This list was arranged in order of desirability. From this list of fifty cases fifteen were selected for the restoration class. In some cases parents or guardians were unwilling to send the children and so it became necessary to prepare a long list in order to get the desired number. The class membership was always limited to fifteen as it is believed by the Department that one teacher cannot give individual instruction to more than that number.

Since all of the cases were selected from the Clinic records in every *Preliminary* case a clinical examination of the child had been made.

*Work* It is an unbreakable rule of the department that no child is ever to be taken into the restoration class as a regular member of the class who has not previously been examined at the Clinic. Many of the children in the class had had several clinical examinations. This clinical examination includes personal and family history, mental examination and physical examination. The physical examination

includes certain anthropometric measurements such as height and weight which indicate the stage of development of the child's growth processes, whether normal, retarded or accelerated.

Home and school visits are made for each child by the Social Service Department. At the school the social worker finds out the character of the child's work, whether his work is even or is better in some subjects than in others, what his school progress has been, what kind of teaching he has had (e.g. whether his teacher is experienced, what her method of handling children is, whether the child has had any manual work). The social worker also finds out the child's attitude toward the teacher, toward the school work, toward the other children, whether he plays normally etc. At the home the social worker finds out the financial level of the family, the care the children receive, methods of discipline. The home visit also gives her a chance to estimate the mental level of other members of the family.

The clinical examinations, the school and home visits are preliminary to the opening of the class. Their purpose is to give a complete clinical picture of the child. We supplement the findings of the clinical examination by noting the child's reaction to his natural environment, his home and school life. This is especially important when one uses a social definition of restoration as I am doing in this thesis. This complete clinical picture is also valuable to the teacher. School is a preparation for life so must concern itself with all aspects of life, not merely with the academic side. The teacher can give the child the educational treatment best suited to his needs if she has this complete clinical picture of him.

Previous to the opening of the class all physical defects which can be corrected are corrected. The University and other hospitals in Philadelphia co-operate with the Clinic in this work. Hypertrophied and diseased tonsils and adenoids are removed, vision is corrected, teeth are cleaned and filled, etc. The six weeks of the summer session are so short that it seems advisable to have this work done beforehand. As the restoration class is a psychological experiment it is advisable to have the children in just as good a physical condition as possible.

The group is far from being a homogeneous one. In age the children *The Children* range from seven to thirteen. Physically they vary *as a Group* much. Some are in excellent physical condition, others in fair, some in very poor condition. Some are anemic, many nervous, a few partially deaf. They come from many different kinds of homes. The larger per cent of them come from homes of the poorer class. But

even here conditions vary very much. Some children in poor homes receive very good care and others do not. One child (Francis D.), for instance, comes from a home where the father is dead and the mother is keeping the family on a small mother's pension with some help from two older children, yet the children receive very good care and are well-fed and well-nourished. In another home financially of about the same level (Jacob S.), care is very poor and the children under-fed, not because of too little food but because of food unwisely chosen and poorly cooked. Discipline varies very much. In some homes discipline is adequate and intelligent; in other homes it is too strict or too lenient, or unintelligent, that is, not the kind of discipline adapted to the needs of that particular child. One child (Jennie J.) receives excellent care but the discipline is not adapted to her particular needs and has suppressed almost completely her initiative and individuality.

Pedagogically all the children have one point in common. They have been unable to get along well in school. School progress has been retarded in every case. As to the school grade, they range from the first through the fifth grade. The nature of the school difficulty has been different in each case. Some of the children are generally weak in all subjects. Others have special difficulty with arithmetic or with reading. Others have a speech defect which retards progress. Probably in no two cases is the nature of the difficulty exactly the same.

And in mental traits there is still greater diversity among the children. Some of the children need special training in self-control. Others need to be encouraged to express themselves. Some are pugnacious and aggressive, others timid and easily imposed upon. Attention is adequate in some cases; in others inadequate. This diversity of mental traits will be brought out more fully in the discussion of the individual children.

The class then is far from being homogeneous in its composition. The children have really only one point in common; they are retarded in school work. As regards age, physical condition, the environment, nature of the difficulty with school subjects and congenital traits there is much diversity among them.

The number of children is limited to fifteen. There are two regular teachers besides a special teacher who comes in  
*Class* for physical exercises. These teachers have all been  
*Organization* especially trained for this work. The two regular teachers, besides having had successful experience with

both normal and subnormal children, have had a thorough foundation for the work by extensive work in psychology.

The curriculum included the usual academic subjects, arithmetic, reading, spelling, oral and written language, writing and articulation work for the children with speech defects. In addition to the academic subjects there were physical exercises, folk-dancing, swimming and several kinds of handwork.

In the teaching of the academic subjects several points of difference from the teaching in most regular grades are worthy of note. There is no rigid course of study. The spelling words, for instance, are often taken from words which have come up during the day in the various activities of the classroom. They are words in which the child has become especially interested and which he feels the need of being able to spell. For an arithmetic lesson a boy may measure the amount of lumber necessary to make a bench and its cost at so much a foot. The work is very closely related to the child's experience and needs. He learns addition not as an abstract process but as a concrete thing necessary to accomplish something which he very much wants, very closely related, then, to his needs.

The suggestion of what to do often comes from the children. The first period in the morning, the opening exercises is conducted almost entirely by the children. During that period they bring up events which have interested them at home, on the way to school or in school. Often something comes up in the opening exercises that furnishes a theme for later lessons. For instance, one day a child saw a skeleton in a shop window on the way to school. This led to a discussion on the function of the bones, how to keep the bones straight, etc. Physiology was not scheduled for 9:30 that morning but a lesson in physiology was conducted at that hour which was of far more interest to the children than a lesson that had been planned beforehand would have been. If a bird happens to fly into the room, a lesson on birds is almost sure to follow. If a lesson proves to be especially interesting and profitable it is prolonged.

The child has much freedom in the choice of work at his seat. Early in the morning each child is given his spelling, arithmetic, etc. for the day. The he is free to do that work whenever he wishes. His work has to be completed at a certain time and he is responsible for completing it within that time but is free to arrange his work in any way he wishes. If he makes a poor arrangement it may result in his having to do arith-

metic while the other children are doing bench work or he may have to remain after school to complete his work. When that happens once he is usually careful that it does not happen again.

Nor is there any rigid division of subjects. A child may learn to spell a word during an arithmetic lesson or may learn to count during a language lesson. One day in a class lesson on the flag one little boy counted the stripes, several children learned to spell flag, red, stripe, etc., the older children learned about Betsy Ross and the making of the first flag, and all the children drew the flag and learned to sing the song, "Betsy Ross." This was a lesson then in arithmetic, history, oral and written language, spelling, drawing and music.

It would seem that under this system some lessons might be neglected. But that does not happen. Arithmetic, reading, spelling and language are after all related to the child's needs. Under present social conditions we, even as children, need to know how to spell, read, cipher etc. The only difference is that under this system the subjects are more closely connected with the child's needs and he is better able to see the connection. Of course it means that there can be no set programme. The child's need for arithmetic may come, not at 10:30, but at 11:25. But there is under this system a sponteneity and interest in the work which is not possible under a less flexible system. The work is saved from the deadly monotony of routine. The child develops naturally; development is not forced. Moreover, the children develop initiative and an ability to find something to do for themselves. In addition to its undoubted pedagogic value, the method is of scientific value in the observation of the individual children.

In the physical exercises the aim is not only to develop muscular control and co-ordination and to prevent fatigue but to develop mental traits such as alertness of attention, quick obedience, distribution of attention, etc. Instruction is by imitation and command. In the folk-dancing the aim is to develop general co-ordination, grace of motion and beauty of posture. Every other day there was swimming at the University natorium under a skilled director. A few of the children learned to swim during the six weeks.

In addition to the formal gymnastics one period each day was devoted either to free play or to games directed by one of the regular teachers. This may be called a period devoted to social education where the children become the teachers and train each other. There was free give and take. The importance of this period in the development of the child cannot be overemphasized. It was also a valuable



period for observation as it offered an opportunity to see what the child would do when undirected.

The handwork consisted of basketry, rug-weaving, paper construction work and bench work. In all this work the emphasis was not upon the fineness of the finished product but upon what the work had done in the development of the child. The value of the handwork in developing motor control and co-ordination, attention and interest was very great. Often it was the one thing that interested the child and other interests were developed from it. This was especially true in one of the cases reported in the later part of the thesis, Monroe C. Monroe hated school and all connected with it, but through his interest in making a hammock became interested in the restoration class and never missed a day. While in school considerable was accomplished in academic work which would not have been possible had he not first become interested in handwork.

At noon a hot luncheon was served to the children. This was a well-balanced luncheon and observations were made of its effect upon the children as measured by their weight. The children served the luncheon themselves and table manners and methods of serving were taught by this means. Following the lunch period, the children rested in reclining chairs for about a half-hour. Sometimes the rest period was omitted and for it was substituted a period in which the children listened to music by the player-piano. School work was never resumed immediately after luncheon.

The discipline in the class differed considerably from that of the usual school room. In the restoration class restraint was *Discipline* from within, not from without. A feeling of personal responsibility for the conduct of the room was developed in each child. He was made to feel that it was his room, that he was a very real part of the whole. There were only two very simple rules, "Keep busy" and "Work quietly." The children, even these backward children, very readily saw the necessity for these rules and were willing to co-operate with each other to see that they were kept. Much more freedom is possible when this feeling of personal responsibility is developed. The children moved quietly about the room to get materials for their work, or even talked quietly to each other at their handwork, just as employees in any well-ordered work-room talk with each other.

One of the means of developing this sense of responsibility was the "store." Each day each child was given stars for work and conduct. He was not given a star for a perfect spelling or arithmetic paper,

but for doing his best in spelling or arithmetic, however poor his "best" might be. Stars for conduct were given to the children who had been able to take care of themselves for, to take care of oneself was a superlative virtue in this class. If Johnnie had especial difficulty in controlling his temper, he was given an extra star for making an extra effort toward self-control. If Mary was inclined to be untidy, she was given an extra star for a neat desk. Once a week these stars were exchanged by the children for paper money. With this money articles could be bought at the "store," such things as baseballs, bats, hair-ribbons, candy, pencils, etc. So the child had a concrete reward for good behavior and for making a satisfactory effort. In addition to its value as an aid to discipline and to the development of a sense of personal responsibility the store offered concrete instruction in arithmetic, in making change, etc.

The instruction of course had to be largely individual, adapted to the needs of the particular child. A child might be doing *Training* third grade arithmetic and first grade reading. The child who had physical defects such as a spinal curvature was given corrective gymnastics under the direction of an orthopedic surgeon. The method of teaching was also adapted to the needs of the child. Each child was studied individually and that method used which was best suited to his needs. If a child were intelligent enough to be taught spelling phonetically he was taught it in that way. To the child with a strong visual and weak auditory memory words were presented visually, while the reverse was true with the child possessing a strong auditory and weak visual memory. Methods of discipline were also adapted to individual needs. The child who needed to develop self-control was helped to develop that control. If a child needed instead to develop self-expression, he was encouraged in every way to express himself.

Of course individual treatment of the children in the room demands much of the teacher. She must study each child separately and plan her work so that the child will be given the kind of instruction that he needs, and that no one in the class will be neglected. It is essentially a psychological method and requires close and trained observation. The teacher of the restoration class, Miss L. Edna Slugg was unusual in her ability rapidly to "size up" the children, classify them, discover their assets and defects and the kind of instruction they needed. Even in class lessons attention to individual needs is possible as was illustrated

by the lesson on the flag quoted above, a lesson which was adapted to the intelligence of the different members of the class.

Emphasis on individual training does not mean that group spirit is neglected. In fact it seems to me a more real group spirit is developed by this means than by the more formal class-room discipline. A spirit of helpfulness develops. The older children help and feel responsible for the younger children. The children love their work and feel pride in the room. It is so truly their room. Even the programme depends upon them to a large extent, so a spirit of loyalty to the room and to each other develops.

What is the attitude of the children toward the room? At first they are shy, self-conscious and unresponsive. They come usually from regular rooms and, as they are the backward ones in these rooms, they have been repressed and have lost confidence in themselves. They have lost the power of initiative and have developed the habit of waiting to be told what to do. But as they begin to feel the spirit of freedom of the class-room, they become responsive, interested, busy and happy in their work. That their interest is real is shown by their attendance which was very good even for the hot summer season in Philadelphia. Many of the children came early and went late so interested were they in their work. The conditions seemed to be the ideal ones for bringing out the child's best.

## CASE HISTORIES

### FANNIE B.

Fannie is a case which is classic in the history of the Clinic. She was selected for special study because at the outset she was considered a hopeful case for restoration. Fannie has been under the observation of the Clinic for nine years. For a part of that time she was in the direct care of the department and for the whole time the Clinic has directed her care and education. Seventeen social agencies and eleven physicians have co-operated with the Clinic in this work. Physical care, a carefully selected environment and special training have all been tried. I have chosen her for my thesis because it seems to me that no factor has been neglected to being about her restoration.

Fannie was discovered by a school nurse in 1907. She was then a sullen, under-nourished child of eight years with a dull and vacant expression, irregular teeth and speech so defective as to be unintelligible. The father, mother and seven children lived in two small rooms which were sparsely furnished, poorly ventilated and very dirty. There were soiled clothes in a corner and an offensive odor from the sewer drainage. No regular meals were served but bread, tea and sometimes fish were kept on the table and, as the nurse reported, "the flies ate all the time, the children when hungry."

The family is Russian Jewish. They lived in southern Russia for a time where the first four children were born. Then they moved to Buenos Ayres and finally to North America in 1894. The father is a religious teacher and earns less than three dollars a week. In 1907 there were nine living children in the family, all apparently normal. The family history is meagre and, so far as reported, negative.

Fannie was brought by the nurse to the Clinic in March, 1907 for a mental examination. She had entered school at the age of six and had spent two years in the first grade with still no hope of promotion. It was discovered at the Clinic that her tonsils were very seriously hypertrophied and that adenoids were probable. Her vision was defective and there was an internal strabismus. There was a reduction in hearing to about one-fourth normal. In the examination she was very stubborn, was unwilling or unable to answer questions and refused to have her picture taken, turning and facing the back of the chair. She seemed almost entirely lacking in curiosity, vanity, energy and good-will. She showed so little interest in her surroundings as to appear feeble-minded.

In April her eyes were refracted and the tonsils and adenoids removed. A better diet was prescribed by the school nurse. As a result of the operation and the better diet Fannie's appearance improved, the skin was clearer and her weight increased. She began to show some interest in her environment and her powers of attention improved. She still breathed through her mouth and was still very deaf especially for words.

Because of the marked improvement in Fannie as a result of the better physical care and because she had made intelligent answers to questions in the mental examination it was decided that she was an interesting case for study and hopes of her ultimate restoration were held. In June, 1907 she was placed in Dr. Witmer's Hospital School and during the summer attended the special class conducted by the Psychological Department of the University.

The teacher of the Special Class discovered that Fannie could write a number of sentences from memory but knew none of her letters. Her articulation was very faulty. The attention was hard to hold and she was very stubborn. For about half an hour in the morning Fannie appeared to be in a stuporous condition, dull and uninterested. Gradually, if left alone, she would awaken from this condition and do fairly rapid work. These periods of stupor shortened from day to day and finally disappeared entirely.

Little was accomplished in the articulation work at first because of poor attention and lack of interest combined with the deafness. But finally Fannie became more interested, learned to imitate sounds given her and at times seemed to hear even differences in shading without any trouble. She was never able to hear separate words if spoken in a low tone.

Her comprehension in number work was very slow but she learned during the summer to add by twos to ten and subtract by twos in the reverse order.

Her social education progressed rapidly. When she first came to the Hospital School she took large mouthfuls, bolted her food and did not know how to use a knife, fork or spoon. But she was very observant and her improvement was rapid.

In July a second adenectomy was performed and in August a third operation was necessary. The improvement after each operation was noticeable in all her work. She was brighter, more lively, talked and laughed and took an active interest in her environment.

The improvement in Fannie as a result of the summer's care was very great. Her character seemed completely changed. Her attention had improved, she was less sullen and stubborn, her interest in her surroundings had been aroused, and she had become lively and talkative instead of dull and apathetic. Her articulation had improved, she had learned many words of one and two syllables and had done fairly well in number work. She showed a good visual memory for words and could copy nicely on paper.

After the summer session Fannie was sent to the country and in October, 1907 was placed in a private home near the University and attended public school. It was hoped that she would be helped by a real home environment and special attention was given to her diet, her articulation and the formation of correct habits of breathing. Fannie became very helpful in assisting about the house. She was very fond of younger children. She seemed contented and happy in her new home.

In school she was entered in the first grade. By this time she could read well in the second reader, was good in spelling and wrote very nicely. Her number work was still poor and she had great difficulty in expressing herself. Her hearing was quite good, at times almost normal until December when she again became quite deaf. The deafness seemed then the only obstacle to her making normal progress.

In January, 1908 Fannie was again taken to a laryngologist, and it was found that she had chronic catarrh of the nose, throat and middle ear. It was thought she might improve under treatment and regular treatments were given her three times a week. Her hearing during the winter was very variable. At times when her nose was clear her hearing was almost normal and she would appear bright and lively. Again, when the catarrh was bad, she would be very deaf and consequently dull and her old fits of sullenness would return. Her condition was very dependent upon the weather.

By spring her nose and throat condition was much improved and consequently she was bright and lively. She became very much interested in her clothes and wished to wear her best every day. Her surroundings aroused her interest and she asked such questions as "How do the flowers grow?" "Where is God?" "Why can't we see Him?" Except for the number work she seemed to get along fairly well in school and in June, 1908 was promoted to the lower second grade. She was then nine years old.

During the summer of 1908 Fannie again attended the summer school. Her deafness seemed much improved and she was bright and alert in her manner. She was very self-conscious, giggled and squirmed on one foot when spoken to. Her nose and throat treatments were continued during the summer.

In the fall she again attended public school and was promoted to the upper second grade in January, 1909. In June, 1909 she failed of promotion. In the fall of 1909 Fannie was placed in a small institution for dependent children and attended public school. Her school record was not so satisfactory in the new school and she was demoted to lower second. She was very shy in school, difficult to teach and copied her lessons from the other children. The school placed her on the backward list. Housework she did very well although she needed more supervision than the other children in the home.

In January, 1910 Fannie was placed in a small, private school for backward children which was located in the country. She was then about eleven years old, the exact date of her birth not being known. The new teacher, Miss B. found Fannie helpful, quick and thorough around the house and her disposition very pleasant. She was happy and affectionate and very fond of caring for the younger children. In school work she was dull but interested and earnest. Her articulation was very poor, reading and spelling fair, language work good and number work poor.

During the winter of 1910 Fannie made fair progress. In the spring of 1910 Miss B. succeeded in interesting her in nature study with excellent results. Improvement in all her work and especially in number work was very noticeable. She became interested in her environment. Her progress in domestic work continued. She was very tactful and trustworthy in handling younger children. She was thoughtful and could be sent on errands, buying several articles at different stores and bringing back the correct change. She developed a more intelligent understanding of what she read. Her nose and throat condition continued to improve.

Fannie's improvement was so encouraging that in the fall of 1911 when Fannie was twelve years old she was again entered in public school, still living however at the private school in the country. Her work in the school was very satisfactory. The teacher and principal were interested in her and she made very satisfactory progress.

Fannie attended public school until the fall of 1913. She passed into the fourth grade with a general average of 92. In the fourth grade

departmental work was begun and Fannie became confused by the number of teachers, could not always hear, and was distressed when her marks were poor. Her comprehension seemed duller and her marks were not nearly so high. In spite of this she passed into the fifth grade in June, 1913 at fourteen years of age. But the strain of the school year had been severe so in the fall of 1913 Miss B. decided to keep Fannie in her own school for the following year.

Fannie reached puberty in December, 1911 at the age of thirteen years. With puberty there seemed to come a change in Fannie's character. She lost her sweetness of disposition, became sullen, rude, selfish and greedy. She would dictate to the other children. She grew lazy and would scheme to get out of work. She developed the fault of self-pity and felt abused if made to work.

Mentally she seemed to retrograde and grow dull and stupid. She seemed lacking in imagination, did not comprehend things unless presented very concretely. She became easily confused. Miss B. attempted to train Fannie to assist her in manual work in the school but found that Fannie did not have sufficient judgment for this, and so, instead, she trained her to be an upstairs maid. This was difficult to do because of Fannie's self-pity and her laziness. She did not wish to do the routine work but craved new experiences and was consequently discontented. Yet she was unequal to meeting new situations and the attempt to do so only caused mental confusion and sullenness.

In May, 1915 when Fannie was sixteen years old she was tried as assistant maid in a home. She was found unsatisfactory and remained only five days. A situation was then obtained for her where she could earn her board and room by doing light housework. Fannie is still working for this family and her work is satisfactory with constant supervision. She is not competent however to earn any wages and her clothes are provided by a charity society.

Nine years of special training and medical treatment have failed to make Fannie self-supporting. She is to-day socially incompetent, hence we must diagnose her as feeble-minded.

As to the cause of her mental condition I believe she is a case of acquired feeble-mindedness due to neglect. It is probable that her heredity has not been especially favorable. The mental level of her family is not high. The charity organization has a constant struggle to keep them above the poverty line. Yet I do not believe that Fannie is congenitally feeble-minded but that by birth she is normal although low



normal, somewhat below the average. For eight years she suffered from insufficient food, poor food, bad air and lack of care generally. This eight years of neglect has resulted in a physical condition that is permanent. That her mentality suffered also from the same cause, I feel certain. Her disposition, her attention, her interests all varied with her physical condition. The same causes which produced the general physical condition affected at the same time her nervous system, resulting in a permanent mental retardation, an arrested development. The retrogression at puberty seems to militate against this and indicate an innate defect. But it seems to me that an organism weakened by neglect as Fannie's was might succumb to the storm and stress of puberty although not innately defective.

## JAMES C.

James was first sent to the Clinic in October, 1912 by a hospital clinic because of suspected mental deficiency. He was then almost nine years old. He seemed quite normal to the mother, played with children of the same age and got along well with them, not allowing them to impose upon him. But in school work he seemed unable to make any progress. He had entered the first grade at the age of six and was still in the first grade at the time of the examination.

James was being treated for chorea at the hospital. He had been excessively nervous for four years; his nervousness seemed to increase after an attack of measles at the age of six. He had nocturnal enuresis which had not been helped by circumcision nor by medicine. Adenoids and tonsils had just been removed and his eyes refracted and glasses prescribed. There was no history of any serious illness.

Birth was natural, full term and he was not partially asphyxiated. But he was a blue baby. As a baby, he was healthy, not troublesome and seemed like other children. He walked and talked at the usual time and cut his first tooth before he was a year old.

James' father died at the age of forty of "stomach trouble." The mother supports the family by working by the day. An older girl in the family is at service and earns four dollars a week. There were four other children in the family, all reported to be normal. There was no history of any abnormalities in the family and no history of miscarriages.

James showed up very poorly in the mental examination, was diagnosed as feeble-minded and an application for institutional care made. This application was accepted by the institution but the mother never took James to the institution.

In March, 1915 a social worker from the Clinic called upon James' mother. His mother reported that James was getting along nicely in school and seemed to be getting "brighter." A second examination of James was immediately arranged for and the date set for April, 1915.

James was by this time in the lower third grade. His reading and spelling were reported to be good, writing and arithmetic fair, geography good and handwork good. His attendance was regular, he had never changed schools and his conduct was good. James had spent two years in the first grade and two years in the second grade.

His physical condition had much improved. He was still nervous but much less so than in the previous examination. The enuresis had

persisted. His age was now eleven years and four months. He was very tall for his age, both his height and his weight being that of a boy of fourteen. Posture was fair and gait normal. Nutrition seemed to be good. His forehead was low and the shoulder blades prominent.

In the mental examination he did very well. He read understandingly from a second and fourth reader and his reproductions of what he read were intelligent. His number work was third grade level by the Curtis tests. In the speed reasoning test he did not comprehend the explanation. After the explanation was repeated he made three attempts with one example correct. By the Binet-Simon scale there was a retardation of two years.

His showing in this examination was so much better than in the previous examination that it was felt that he was of normal mentality although retarded in school work. To test this diagnosis it was decided to enter James in the 1915 restoration class for observation.

When James entered the restoration class his age was eleven years and seven months. James was very good-natured and so docile as to be easily imposed upon by the other children in the class. His expression was cowed and spiritless. His posture was stooping as if he had neither the energy nor the courage to stand erect. In his movements he was slow and uncertain like an old man. He was very slow in following directions and usually directions had to be repeated for him. When his hearing was tested it was found to be normal. His slowness in following directions was due not to defective hearing nor to lack of obedience but to slow comprehension. He was unable to distribute his attention so could attend to but one thing at a time. If given more than one direction at a time, he became confused. If given definite tasks to perform he accomplished considerable but, if left to himself, would spend his time wondering what to do next so would accomplish little or nothing.

Reading and spelling were good third grade level. In number work he could add, subtract and multiply. An attempt was made to teach him short division but his comprehension was so slow that he accomplished little during the session. He had a fair knowledge of third grade geography facts but his ideas were often confused, although a few definite questions from the teacher would usually clear them up. He had much knowledge of the world especially of robbers' devices, of people arrested, etc. This information he probably learned from his brother who was a truant and very troublesome.

James' eyes were tested during the session and found to be badly in need of refraction. There was hyperopia and astigmatism. The

right eye was probably amblyopic and had a tendency to deviate outwards. There were some old scars on the right cornea of uncertain origin.

The chief factor in James' progress has been, I think, the retentiveness and trainability of his memory. Learning has been slow as the result of a limited memory span (four digits), defective comprehension and intelligence but he has retained what he has learned. Analytic concentration of attention is fair and his attention is very persistent but not well-distributed. Threshold of sensitivity is high both for vision and audition. Imageability is also defective. Control and co-ordination of movement are poor and he has almost no initiative. Vitality is poor. His defectiveness is thus quite general, his only asset being his retentive memory.

James is quite certainly feeble-minded. The mental level of the family is not high. The mother's intelligence is of a low level. The children who are working earn low wages and do not advance in their work. But while the heredity is not very favorable, I do not believe James' deficiency is hereditary. I doubt whether it is even congenital. Babyhood history was favorable. The only unfavorable point in his birth history is the fact that he was a blue baby. I incline to the belief that he is a choreic defective. When he first came to us he was suffering from a severe case of chorea and his mental level seemed to be that of a middle grade imbecile (Barr classification). The improvement he showed in the second examination I believe to have been due to the improvement in his nervous condition. However, I doubt whether there will be any further improvement. The effects of the chorea still remaining are permanent effects, so that his present mental status is a permanent one. Ultimately institutional care must be considered for James as he is just intelligent enough to make a good tool for some more intelligent "crook."

## CHARLES C.

Charles was first sent to the Clinic in January, 1915 by one of the churches in Philadelphia because he did not seem to be getting along well in school. His age was then nine years and ten months. Charles was in the upper second grade having spent one year in each half grade. Reading and spelling were poor, writing and arithmetic fair. He was fond of music and able to carry a tune. There was no handwork in the school. Although Charles had twice changed schools, his attendance had been regular. He was often tardy. Conduct in school was reported to be poor.

Charles seemed quite normal to his parents. They reported that he played with children of the same age and got along well with them, not allowing them to impose upon him. He played tag, hide-and-seek, ball, etc. and was very active in play. The mother admitted that Charles was very mischievous and preferred to play rather than work. His father helped him with his lessons at home and said that Charles always knew his lessons before starting to school but seemed to forget them in school. The father scolded Charles for forgetting his lessons but without result. The mother said that Charles could not be driven or "hollered at."

Charles' health was reported by his mother to be good although he he was very thin. He slept well and had a good appetite. His bowels were regular and carefully watched by his mother. There was no history of enuresis nor of any serious illnesses nor accidents.

His birth was instrumental, although full term. Delivery was forced. He was a blue baby and partially asphyxiated. At birth his whole head was reported to have been black. He weighed nine pounds. The mother had nursed her father-in-law through a serious illness just previous to her pregnancy so her health during her pregnancy was poor and she was ill in bed for three months previous to Charles' birth. After his birth she had a prolapse.

Charles was a little late in teething, walking and talking. His first tooth he cut at the age of eleven months, he walked at fifteen months and talked at two years. He was healthy, not troublesome and seemed in every way like other children.

In the family there is a serious history of tuberculosis. The father was at the time of the examination dying of tuberculosis. Both his father and mother died of tuberculosis and one sister was suspected of

tuberculosis. Besides Charles, there were two other living children in the family, a girl of seven in whom tuberculosis was suspected and a baby of two years who later developed tubercular glands. The first-born child had died at the age of four and a half years of tuberculosis of the hip. There is no history of miscarriages in the family but there had been three stillbirths. In the case of the last-born child a miscarriage was threatened at the fifth month.

Physically Charles was well-developed and fairly well-nourished. His head was microcephalic and contracted in the frontal region, his forehead sloping. The shoulder blades were protruding and the chest very flat. The internal canthus was adherent suggesting a uterine arrest of development.

The mental examination revealed considerable retardation in school subjects. His reading was only a first reader level and then he missed a number of words. He reproduced only one idea out of a possible nine or ten. Simple problems such as "How much change would one get if one bought two pounds of sugar at six cents a pound and gave the storekeeper a quarter?" he only succeeded in getting after several attempts. He succeeded no better when given the coins with which to make change. On the Binet-Simon scale his level was that of an eight-year-old child but he performed the tests more like a seven-year-old. Mental processes were very slow. His memory span was only five digits. In some of the tests he showed himself to be capable of rather close observation. However, the results of the tests were inconclusive, revealing no specific mental defects. So diagnosis was deferred and it was decided to admit Charles to the 1915 restoration class.

Charles was doing no better in school work, every subject being unsatisfactory. He was still in the upper second grade. Attendance was irregular and he was often tardy. He made no effort and was disobedient, foolish and silly.

A call to the home was made and the home found to be fairly neat but poorly ventilated. The mother seemed quite competent but inclined to interfere too much with the school and probably too lenient with Charles.

When Charles entered the restoration class his age was ten years and six months. He was very restless and inclined to be disobedient, responding slowly or not at all to class signals. He did not apply himself but preferred trifling to working. He improved in this respect during the session and by the close of the session was fairly prompt in responding to signals. His disposition was usually pleasant. He had

occasional sulky spells but they were of short duration. He would smile in spite of himself. He played quite normally with the other children in the class and got along well with them although he would occasionally tease them in a good-natured way.

In number work he could add with carrying, subtract with borrowing and multiply by one digit. But he was very careless, would leave out a number or forget to carry. He often confused one process with another, adding when he should multiply. An attempt was made to teach him short division but met with no success. He would continually multiply instead of divide. The fundamental operations of arithmetic seemed to have little meaning for him and he showed the need of further drill in concrete work. He could solve simple one-step problems and occasionally problems of two steps if one of the operations involved were addition or subtraction.

He read very well in a first and fairly well in a second reader. His reproductions of what he read were very scanty. Spelling was fair second-grade level if the lesson consisted of not more than ten words, half of which were familiar. He was confused by a longer lesson and would accomplish nothing in it. Writing was very careless. Oral language was good second grade level, written only fair.

He accomplished little in handwork as he was not willing to make much effort and did not persist at any task. To avoid sawing he took some pieces left from another boy's work and fitted them together.

Very little was accomplished in school work during the session. He made little effort and evaded a task whenever possible. He constantly said "I can't" when able to do. Attention to class lessons or to work at his seat was poor and it required constant effort on the part of the teacher to keep him at work. He was not at all disturbed by failure and constantly assumed an attitude of "showing off" before the observation class of teachers even when doing poor work.

Charles' chief defects are in attention. He is lacking in both analytic and persistent concentration of attention. Mental processes are very slow and he is easily fatigued. Retentiveness is poor so his memory is not trainable. Auditory memory span is only five digits. Intelligence is very poor and he has displayed no planfulness. In the mental examination his confusion of some of the blocks of the form-board would seem to indicate a defect in imageability. Co-ordination and control of movement seem to be sufficient and he has plenty of initiative.





## JOHN C.

John was first sent to the Clinic in June, 1913 by one of the hospitals in Philadelphia. He was backward in school and his mother complained of his lying and stealing. His age was then nine years and nine months. His mother gave him a very bad character. She said he was easily influenced by bad companions and had been stealing from her, from the teacher and from pupils in the school for several years. He often tried to lay the blame on his younger brother. He was very impulsive and had a violent temper yet was affectionate. He did not seem to be able to discriminate between right and wrong and never repented of his misdeeds. He played with boys of his own age and was very active in play. He was able to go on errands, in fact seemed quite intelligent. He had a paper route and was very clever about keeping money given him by new customers. The mother and grandmother tried to discipline him by both threats and persuasion but neither method was at all effective.

John had entered school at the age of six years. He had spent three terms in the lower first grade, one term in the upper first, two terms each in the lower and upper second grade. At the time of the examination he had just been promoted to the third grade. The teacher reported that John was indifferent and did not pay attention but did not seem to be defective. There were fifty children in the room.

John's health was excellent except that he was somewhat nervous. He slept well but was restless in his sleep. He had been circumcised two years previously. There was no enuresis.

Birth was instrumental. Labor was long and difficult and the baby was injured. The marks of the instruments were still visible but there was no depression. As a baby John was very bright; he began to walk and talk at the age of nine months and was easily trained in personal habits.

There was one other child in the family, a boy of six years. Although sickly and delicate this boy was bright and at the age of six years was in the second grade. John's mother had not lived with her husband after the birth of her second child because of his cruelty. Soon afterward her husband had died of tuberculosis. He had never been strong and had had a "tobacco" heart. After his death John's mother remarried but six months later her second husband dropped dead. Since the death of her second husband she had lived with her mother and held a position as a cloth mender. Her mother rented rooms to University

students. The grandmother seemed intelligent and the students were fond of her. Nothing unfavorable was reported in the family history. The mental level of the family as a whole seemed rather above the average.

No serious defects were discovered in the mental examination. The examiner felt it was a case for careful teaching and judicious discipline and recommended that an attempt be made to break up his habit of stealing by encouragement rather than by severe discipline. It was suggested that the teacher make her teaching more concrete for John.

In June, 1914 John was still in the lower third grade and was not to be promoted. The teacher reported that his writing and geography were poor and his arithmetic impossible. In language he would write sentences that did not make sense. He learned readily to recite poems but could not write them. His best work was in spelling. His conduct had improved and he was no longer troublesome.

An examination at the Clinic at this time confirmed the teacher's report. Spelling was fair. In reading he was slow. He knew most of the words in an Aldine first reader but was very careless. In arithmetic he was very slow and did not know the arithmetical combinations.

His mother had less trouble with him. She had tried reasoning with him about the lying and stealing and he had much improved.

John was admitted to the 1914 restoration class. He was very troublesome at first and not at all interested. Finally he became interested and developed into a good, earnest helper. He applied himself better to his work although still not working up to his limit. He was always popular with the children in the class and a leader in their sports. His age was now ten years and ten months.

His school work was about high second grade level. His progress was very slow. He was two weeks learning addition with carrying. He seemed very slow in forming new associations. His handwork was good.

In the fall of 1914 John was allowed to enter the upper third grade in spite of the fact that he had failed of promotion in June. He seemed more interested in his work and his work had very much improved.

In July, 1915 John was re-examined at the Clinic. His age was then eleven years and ten months. His mental age by the Binet-Simon scale was less than ten years. There was considerable retardation in reading and spelling; his work was not higher than second or low third grade level. In the mechanical tests he did fairly well using an intelligent method on the whole although, in the Healy Construction Puzzle

B., he made several attempts to force the circle into the half-circle space. He worked slowly and deliberately. His memory span was seven digits.

John was admitted into the 1915 restoration class. Outside of academic work John certainly gave one the impression of being a very normal boy. He was pleasant in the room, obedient on the whole and very popular with the children in the class. In their sports he was a leader and his sense of honor in the games was high; he always played "fair." In all his social reactions he was intelligent. While inclined to be mischievous himself, he would not tolerate the sneakiness and deceit of William G. and decided to "settle" with him but waited until the last day of the session so he would not lose any stars by the transaction.

He was interested in the physical exercises, gave good attention and executed the movements with precision and force. When the commands were given rapidly he was never confused but rather stimulated to greater effort and seemed to thoroughly enjoy the contest. He enjoyed swimming and was a very good swimmer.

But in academic work he was not interested. He would do nothing if allowed to and could manage to appear very busy and at the same time accomplish nothing. If told a task must be accomplished he stopped his trifling and got to work. As soon as that particular task was accomplished he took up his trifling again.

One was in danger of being deceived in John. It seemed as if he could accomplish if he would. But if one observed him very closely one found that, even when he made the effort, accomplishment was slow. He worked very slowly and it took him a long time to understand any new step. Even the addition of one more digit in an example in multiplication was for him a new step. His reading, spelling and arithmetic were fair third grade level. In reading he was very slow in recognizing a word and seemed unable to direct his attention to the word, a defect in analytic concentration of attention. If given time enough he could usually recognize a word.

Although somewhat interested in woodwork John had little interest in other handwork. He worked intermittently all summer on a very simple mat, finishing the last day when the class were offered extra stars for completed handwork. Several times he persuaded James C. to work on the mat for him.

Perhaps John's most apparent defect is the limitation of his range of interests. Were he interested in academic subjects considerably

more could be accomplished. But there are other defects. Mental processes are very slow. Analytic concentration of attention is defective and his attention is not persistent, except when he is interested. His attention is well-distributed. His movements are well controlled and co-ordinated and he has plenty of initiative. There seem to be no defects in imageability but he seems unable to make associations for himself although his memory span is seven digits. His powers of observation are good but his intelligence is less than fair. While his retentiveness seems normal his memory is not trainable due to his inability to form associations for himself.

With the slowness of his mental processes, his defective understanding and only fair intelligence, a memory which is not sufficiently trainable and his lack of effort and application it is impossible for John to acquire an adequate education. The last report of him was in April, 1916 when, at the age of twelve years and seven months, he was still in the upper third grade with a general standing of 30. Progress for John must always be slow and he can never make up his grade retardation. He is not a restoration case.

## MONROE C.

Monroe was first sent to the Clinic in April, 1913 by the principal of the school because of his pedagogical backwardness. Monroe's age was then ten years and five months. He had been attending the one school for four years but was not getting along well in school.

Monroe lived with his paternal grandmother. His mother had left her husband when Monroe was a year old. Before her marriage she had been a bare-back rider and fancy toe dancer in a circus. Her mother and step-father had also followed the circus life but were reported to have been fine people. After Monroe's mother left her husband it is reported that she became a "bad woman."

Monroe's father was a trapeze performer in the circus before his marriage, having entered the circus life at the age of fifteen. When he married he gave up the circus life and drove an ice wagon, but returned to the circus when his wife left him. As a boy he had been slow in school work.

Monroe had lived with his grandmother since he was a year old. The family consisted of two of Monroe's aunts, one aged twenty-three and one of twenty-six and a little girl cousin of four and a half years besides Monroe and his grandmother. Monroe was reported by the grandmother to be affectionate and fairly obedient with no bad personal habits. He was fond of out-of-door sports such as cycling and ball and had a preference for companions older than himself. At home he shoveled the snow and cared for the furnace. He was very fond of sweets but would not eat meat and vegetables unless forced to do so.

Monroe was an only child and there have been no miscarriages in the family. His birth was normal in every way. He was a healthy baby, bright and not at all troublesome. He sat up at six months, walked at fifteen months and talked plainly at two years.

He has been healthy except that he is subject to colds. Adenoids and enlarged tonsils have been diagnosed but the operation has never been performed.

At the time of the examination Monroe was an attractive looking boy, normal in appearance, well-nourished and in excellent general condition. His hands were moist and slightly cyanosed. He had a protuberant abdomen and a slightly minus genital development. The teeth were decayed and somewhat crowded. There was a slight lordosis.

Three mental examinations have been made of Monroe; one in April, 1913; a second in March, 1915 and a third in April, 1915. The

examinations revealed considerable retardation in school subjects. In the 1915 examinations his number work was third grade level, reading scarcely as high. Spelling was very poor. The general impression he made was favorable; he was interested in the tests and intelligent in those he could do. Memory span was limited to five digits. The results of the examinations were inconclusive, diagnosis was deferred and Monroe was entered in the 1915 restoration class for observation.

Monroe was now in the upper third grade. This was his sixth year in school. He was unsatisfactory in reading and spelling and sometimes in language. He was not interested in school, was bored by being with such young children and was beginning to play truant.

When Monroe entered the restoration class his age was twelve years and eight months. He was popular with the other children and got along well with them. He was inclined to tease the younger children but in a good-natured way which they did not resent. In play he was very active and a leader among the boys. His disposition in school was variable. He had very frequent stubborn, sullen spells when he was inclined to be disobedient and very disagreeable. When good-natured he was a very pleasant member of the class. With very careful handling on the part of the teacher Monroe could be coaxed and jollied into a good humor again. By means of encouragement and firmness he was helped to control his moods and, by the end of the session, the number of sullen spells had grown much less and most of the time Monroe was a good-natured and obedient member of the class.

Monroe had little interest in academic subjects, but his interest in handwork was very great. He became so interested in making a hammock that he came to school early and went late and, probably for the first time in his life, began to enjoy school. Through his interest in handwork it was possible to accomplish something in school subjects. But he never became really interested in academic subjects. He merely tolerated them for the sake of the handwork.

In number work he knew the four fundamental operations but needed more drill on multiplication and long division. He could solve simple one-step problems and occasionally problems involving two steps but his ability to apply his arithmetic was far behind his knowledge of the fundamental operations of arithmetic.

Reading and spelling were both very poor. He could read poorly in a third reader, well in a second reader. His reproductions of what he read were very good. He had no conception of phonics but learned during the session to recognize a few words in this way. He could

learn daily from six to ten words of second, third and fourth grade level but, once learned, the words were only retained for a few days.

Monroe's fund of general information was higher than his general educational level but hardly the level of a boy of twelve and a half years. His progress during the summer was not great.

In the fall of 1915 Monroe returned to the upper third grade. He did not pass into the fourth grade until January, 1916 when he was fourteen years old. The teacher felt there was some improvement in Monroe's work but his reading was still scarcely second grade level.

Monroe has a specialized defect, an inability to retain letter combinations. This makes it impossible for him to learn to read and write. Hence he is not educable, is what Dr. Witmer calls a "congenital illiterate." Vitality is good; there are no defects in attention and his movements are well-controlled and co-ordinated. His range of interests is very much limited. Observation and understanding are sufficient and his intelligence is, on the whole, normal although limited in range. His limited memory span indicates a defect in associability.

Monroe's defect in retentiveness makes it impossible for him to attain the general level of a seventh grade pupil. He is, therefore, not a restoration case.

## ROBERT C.

Robert has had an eventful life; at least the first twelve years of it have been eventful. He was first brought to the Clinic in April, 1911 by his mother because of a violent temper and general backwardness. The mother had been referred to the Psychological Clinic by one of the hospitals in Philadelphia. Robert was then seven years old. His mother reported that for three years Robert had had violent fits of temper. He had threatened his mother with a butcher knife and had been cruel to his little step-sister. After the spells he was always sorry for what he had done. Except for these spells he was obedient and affectionate. The physician at the hospital had said that the symptoms were those of acute mania.

Robert was in the first grade in school, having entered Kindergarten at the age of five years. He was making practically no progress in school.

Except for his nervous condition his health was fair. Adenoids had been removed two years previously but had again been diagnosed. He had had pneumonia twice. There was no history of convulsions.

Birth history was negative. He had had no infant troubles and had teathed, walked and talked at the usual time.

Robert was an only child. The father had been epileptic and had died insane when Robert was two years old. His father had been reported "queer," one of his sisters had committed suicide and another sister was "queer" and made nervous movements.

There was nothing significant in the mother's family except possibly that her mother had died of tuberculosis. She herself was very nervous and had been in the hospital two years previously with nervous prostration. She had married again and had had one child, Robert's step-sister.

Robert made such a poor showing in the mental examination that he was diagnosed as mentally defective and in need of custodial care. An application to an institution for the care of the feeble-minded was made for him and he was admitted to the institution in August. But his mother felt that Robert was heartbroken at being away from her and so removed him from the institution.

In June, 1913 Robert was again brought to the Clinic because his mother reported that he had "gone back to his old ways." Robert, who was now nine years old, was in the lower second grade, having spent



three years in the first grade. The mother admitted that she was very nervous, worried much over Robert's condition and that her nervousness probably reacted upon Robert. Robert had frequent nocturnal enuresis. His mother now had a baby eight months old.

The Clinic was doubtful of the diagnosis in Robert's case, although still inclined to think him feeble-minded. It was felt to be necessary to remove Robert from his mother's care and so, in July, he was placed with a caretaker in the country. The caretaker reported Robert nervous, melancholy and at first homesick. He was usually obedient and had had no fits of temper. She felt that he had been too much restrained at home. He had become very much interested in animals and was doing well in school work.

In March, 1914 Robert's step-sister died of cerebrospinal meningitis.

In April, 1914 Robert was again examined at the Clinic. He was diagnosed as a border-line case and an interesting case to continue under observation.

Robert was admitted to the 1914 restoration class for observation. His age was then ten years and five months. He boarded in the city and the caretaker had no trouble with him in discipline. He never lost his temper and was always obedient and very affectionate with younger children. He had no enuresis but did have heavy night sweats.

Robert was found in the restoration class to be very much retarded in school work, his work being only second and third grade level. He worked very slowly and if hurried became excited and irritable. His conduct was excellent. He worked best with quiet, firm encouragement.

In the fall of 1914 Robert was placed in the upper third grade of public school, still living with the caretaker in the city. In February, 1915 he was promoted to the lower fourth grade. His work in the fourth grade was not very satisfactory. Reading was good and spelling fair. His arithmetic was very poor. Geography was poor at first but later improved. He was not promoted in June.

Robert was admitted to the 1915 restoration class. His age was now eleven years and five months. He seemed less timid than he had been the year before but was still cowardly and sneaky, pushing the other boys or doing things when the teacher was not watching him. He was slow to obey commands but, if spoken to sharply, became startled and obeyed promptly. There were nervous twitchings of the face. He seemed incapable of making much of an effort and was quickly fatigued. He did not care for woodwork; it required too much effort.

He preferred handwork like spool knitting or simple weaving and did little of that.

His school work was good third grade level. He was about ready to begin fourth grade work. He never volunteered to answer a question although, when it was insisted upon, he could often answer well.

Robert was about ready to begin fourth grade work when, at his age, he should be doing fifth or sixth grade work. Because of his nervousness, lack of vitality and slow mental processes his progress in the future will probably be as slow as it has been in the past. His attention is sufficient in analytic concentration but lacking in persistence. His attention is not alert and his range of interests is considerably limited. His movements are well-controlled and co-ordinated, but he is very deficient in initiative and his movements are not vivacious. Imageability and associability appear to be normal. Understanding is rather slow, he is deficient in observation and very deficient in intelligence. Retentiveness is only fair.

At his present rate of progress it is probable that Robert will reach the level of about a fifth grade pupil. He is, then, not a restoration case. It is probable that he is a type of choreic or epileptic defective.

## FRANCIS D.

Francis was first brought to the Clinic in February, 1915 because of his backwardness in school. His age was then nine years and one month. His mother reported that he played with children of his own age but got along poorly with them, allowed them to impose upon him and was constantly looking for a fight. If sent to the store on errands he would forget what he had been sent for.

Francis presents a picture of quite general retardation. While the birth history is negative he was late in both walking and talking, not walking until fifteen months of age, not talking until four years of age. He was a "nervous" baby.

At the time of the examination Francis had been in school for two years but was still in the lower first grade. His average in that grade was 50; he could not read, write nor spell. While he had attended, in the two years of his school life, four different schools, his attendance had been regular and his conduct fair.

Francis had always been healthy. He had had no serious illnesses except pneumonia and his recovery from that seemed to have been complete.

The father was dead. The mother had a small mother's pension and on this supported herself and ten children with some help from two of the older children. The family income was less than seventy dollars a month and yet the home was comfortable, the children clean and well-nourished. Discipline in the home seemed to be very good. Francis was well-behaved, obedient, truthful and affectionate and gave evidence of adequate home training.

The family history is interesting. The father died in an insane hospital of paresis. The oldest child, a boy of eighteen, is epileptic and mentally retarded. There is no history in the family of insanity or epilepsy. The other children in the family appear to be normal. Two of the older children, girls of seventeen and fourteen, are working and earning only four dollars a week but, as they left school early, the deficiencies in their education may account for their low wages. There have been no miscarriages in the family.

The mental examination confirmed the school report as to Francis' lack of proficiency in school subjects. His reading in the Primer was poor. When asked to read the letters in some of the words, he read "p" as "e," "g" as "a," and "t" as "n." He was unable to spell

such words as "can," "rat," "on" and "the." He had learned no number combinations but had to count up such sums as 3 plus 4 on his fingers. In the Courtis arithmetic test he was only able to do two additions in one minute. There was a year's mental retardation by the Binet-Simon scale. He had a memory span of only five digits. Diagnosis was deferred.

At the recommendation of the Clinic Francis was transferred to a special class. The principal of the school was very reluctant to place Francis in a special class as by this time he was doing much better work in the first grade and had obtained a general average of 70 in the month of March. The special class to which Francis was transferred was large, the teacher inexperienced and the children quite low-grade.

Because of the improvement in Francis reported by the principal it was decided to take him into the restoration class for observation during the summer of 1915.

At the time Francis entered the restoration class his age was nine years and four months. He was a very normal looking boy, attractive in appearance, quiet, well-behaved and very cheerful. He enjoyed the class activities and was very responsive whenever the class activities were within his abilities. He liked to answer questions and often raised his hand when he did not know the answer to the question. As he was not conscious of his own limitations there was almost an entire absence of self-consciousness. He got along very well with the other members of the class although occasionally he showed a tendency to be quarrelsome. In the games he was very active.

In arithmetic Francis knew a few arithmetical combinations in addition and could do simple two-column addition such as  $23+34$ . His comprehension in learning any new step was slow and he easily became confused. An attempt was made to teach him two-column addition with carrying. He learned to add up the right-hand column and write the result at the side, but at this point he became confused. He was not able to complete without much help problems of this sort by the end of the session although all effort was concentrated upon teaching him this one thing. The addition of a new column in simple addition such as  $323+434$  instead of  $23+34$  was for him a new step requiring laborious effort to learn.

In reading also he accomplished little. His recognition of words was very poor. It was found that he did not know the sounds of the separate letters and was unable to discriminate one sound from another. To teach him a new word took much drill and constant effort. Moreover

after it was learned, it was not remembered. Francis spent most of his time relearning what he had learned before. His comprehension of what he read was good and he answered intelligently questions about what he had read. He often supplied a word he did not know from the context. He gave fair attention during a reading lesson and seemed interested in the lesson.

Spelling was as poor as reading. He was handicapped because he did not know the sounds of the letters. It was useless to teach him the sounds of the letters as it required much effort on the part of the teacher and he was not intelligent enough to use phonics after being taught. He seemed to remember spoken words better than written ones so was taught new words by writing them on the board, at the same time spelling them aloud. His retention was so poor that, as in reading, he was constantly relearning what he had learned before.

Francis could do little in written language because of his lack of proficiency in spelling. He was fond of stories and liked to tell stories he had heard to the class, but often omitted important parts of the story and did not always relate the story in its logical sequence. He was always quite unconscious that he had omitted anything but rather proud of his effort.

In the physical exercises he was wholly dependent upon imitation and even then could imitate only the simple movements. In the more complicated movements he became confused and usually executed only a part of the movement. Energy was good and attention fair. He was at his best in the games, interested and quick in his movements.

He was capable of doing only the simplest kind of handwork such as stringing beads or simple paper folding. He attempted to make a bread board but required much help and could comprehend only one step at a time. He worked with great energy and showed no signs of fatigue. Control and co-ordination of movement were good and he had plenty of initiative but poor understanding and no planfulness.

Francis' progress, then, in the restoration class was very unsatisfactory.

Francis' most serious defect is his poor retentiveness. It seems to extend to both letter and number combinations and even to ideas. There are indications of a defect in imageability especially in visual imagery. The limitation in associability is only slight as indicated by his memory span of five digits. Both comprehension and intelligence are deficient and the intelligence is limited in range. Analytic concentration of attention is fair but his attention is not persistent. His

movements are well-controlled and co-ordinated and he has plenty of initiative.

Francis presents a picture of quite general retardation, late walking and talking and marked pedagogical retardation. He has serious specific mental defects especially in memory, imagination and attention. He is quite certainly feeble-minded. His condition is congenital and the paresis in the father suggests the possibility of syphilitic degeneracy.

## JENNIE J.

Jennie was referred to the Clinic in April, 1915 by her mother. She was then ten years of age. The school had reported no deficiencies in Jennie but her mother felt that she did not fit into the school system. Her deficiency in arithmetic was marked. The mother had also noted that Jennie had great difficulty in expressing herself. She seemed very backward, also, in children's games. She did not care to run, skip, jump or climb, was very awkward with a croquet mallet and afraid of falling in skating or swinging. She did not care to play with dolls or play-houses but preferred books, pictures and music. She did not care to play with other children but would stand aside and watch them play, making no attempt to enter into their games. All this was reported by Jennie's mother.

The family history is negative and there have been no miscarriages in the family. Jennie is an only child. Birth was instrumental and labor long. But she was not injured, was not a blue baby and was not partially asphyxiated. The mother's health was good during her pregnancy but the father was forty-two years of age at Jennie's birth and had been under considerable mental strain for a year previous to her birth. Jennie walked and talked at the usual time. At the age of three months she suffered from malnutrition. She was bottle-fed and, the food being deficient in bone-making material, she teethed late and had weak ankles. The weak ankles were corrected with orthopedic shoes. At three years of age she had acute indigestion accompanied by convulsions. The convulsions have never recurred. At the age of six years she had a serious case of typhoid followed by a relapse. Recovery was slow and for a long time there was much muscular incoordination. When she was eight years old, her vision was found to be very defective. Objects appeared wavy, broken and double to her. Her vision has been corrected with glasses.

Jennie had completed the third grade in school. She entered the first grade at the age of seven and a half years and her school progress had been normal. There is no manual training in the school she attended.

Jennie was admitted to the restoration class of 1915. Her age was then ten years and seven months. She was a quiet, shy and sensitive child with almost no initiative. She was excessively neat, even finicky about soiling her hands or her clothing. In the class she never asserted

herself but waited to be told what to do. If left alone she would sit and do nothing but, if given any task, performed it willingly. She was very shy with the other children and did not enjoy their companionship, allowing them to "boss" her and following their leadership without protest. But gradually she began to respond to the freedom of the class room. She no longer waited to be told what to do but learned to keep busy without suggestion from the teacher. Finally she began to assert herself. She began, rather timidly, to ask to do little things about the room such as passing paper or helping to serve at lunch. If permission were refused (as it sometimes was to note its effect upon her and to help bring out her self-assertion) she would frown and actively show her displeasure. This was a remarkable reaction, considering her passiveness at the beginning of the session. She began to enjoy the companionship of the other children of the class and to laugh and play with them. She would beg them to remain after school to play with her. She no longer followed their leadership without protest but began to assert herself and even occasionally to boss, rather timidly, the younger children.

In the restoration class it was found that in number work she could do addition without carrying and subtraction without borrowing and knew her multiplication tables through the threes. But, although she knew the number combinations well, she confused one process with another, adding, for instance, instead of multiplying. She also had great difficulty in solving problems in addition, subtraction and multiplication. She was given addition and subtraction concretely, to teach her the meaning of the processes. It seemed probable that the arithmetic in the school Jennie had attended had been too abstract and she had not been made to understand the fundamental operations in arithmetic. She was slow in comprehending arithmetic and easily confused. Moreover, she was considered by the school to be ready for fourth grade although her arithmetic was barely third grade. She had been allowed to go on without conquering the fundamentals of arithmetic. As a result, she disliked the subject. Moreover, she had had no opportunity at home to apply the arithmetic she had learned. She had never been sent to the store, and had difficulty in distinguishing even the more common coins from each other. She was easily confused in class lessons but made better progress with individual instruction. On the whole, her progress in arithmetic during the session was very satisfactory.



Her reading was good except for her reproductions. She was shy about expressing herself and responded briefly to questions. But her reproductions, although scanty, showed intelligence and thought. Her spelling was good, her mistakes logical. In oral language she showed the same diffidence about expressing herself. There was some improvement in this respect during the session. Written language was better than oral.

In handwork she was awkward and lacked energy and physical strength. She was keenly interested in it, however, and showed good persistence. There was a slight improvement in her co-ordination and energy during the session. In the physical exercises her movements were at first slow and uncertain and deficient in energy. She was unable to raise her arms to the level of her shoulders or to lift her heels from the floor. She was almost wholly dependent upon imitation, was easily confused and unable to keep up with the class. As she became more familiar with the movements she gained confidence, was less easily confused, her movements gained in energy and strength and she was better able to keep up with the class. She showed good concentration of attention and good persistence. Her rhythm in the folk dancing was very good. In the games she was awkward and self-conscious.

Jennie's home is an excellent one of the upper middle class. Her father is a retired merchant. The father and mother are devoted to her and spend much time and thought upon her care and education. The father has collected quite a library of books on the care of children including both physical and mental care. She has been much with older people and has had almost no companions of her own age. In fact she is the product of too much care. She is merely the expression of her father's theories as to what a child should be. She eats shredded wheat biscuit for breakfast, not because she likes them—she does not—but because her father likes them and thinks they are good for little girls. She is quiet and well-behaved because that is her parents' ideal of a little girl. In fact all of her initiative and individuality have been suppressed by contact with stronger individualities. Everything has been decided for her. She has had no freedom, no chance to think for herself, no opportunity for self-development. She seemed quite a colorless child.

Mentally there is a retardation of over a year by the Binet-Simon scale. The errors were chiefly with tests requiring manual skill, facility of expression or arithmetic. She showed much confusion during the

examination, failing in tests which she later performed with ease. She performed the tests slowly and deliberately but systematically and with intelligence.

There are no serious specific defects in the three fundamental processes of attention, imagination and memory. She has sufficient analytic concentration of attention and her attention is sufficiently distributed although easily distracted. Her memory is excellent both in retentiveness and trainability. Imageability and associability are sufficient and her imagination is complex. Her powers of observation are good and her intelligence normal. Her understanding is generally good, although somewhat slow in arithmetic. This has been aggravated by her defective vision, poor teaching and the fact that her environment has not demanded arithmetic. Her father asserts that a woman does not need arithmetic anyway! But the limitation in the range of her comprehension is not sufficient to prevent her learning arithmetic if properly taught. Her progress during the summer warrants that belief.

Jennie's lack of opportunity for self-development explains many of her defects. It explains her lack of initiative and poise, her deficient vivacity of movement and alertness of attention, and her difficulty in expressing herself. Lack of companionship with other children accounts for her deficient interest in children's games as also for her unusual interest in music, books and pictures.

Her physical condition, resulting from malnutrition in infancy and the severe attack of typhoid account for her awkwardness in anything requiring manual skill, her inco-ordination and poor control of movement. She has had little opportunity to improve her co-ordination and control as there is no manual training in the school which she attends and she has played little with other children. That these defects can be considerably modified seems probable from her improvement, slight as it was during the summer.

Jennie, then, I believe to be a restoration case. She has no serious congenital defects and many of her defects can be explained by her physical condition and her environment. Her general level is probably slightly below the average. Had she been average or a little above she might successfully have resisted the suppression of her personality. But I feel sure that her general level is high enough so that, in the right kind of environment she would have developed sufficient poise, initiative, etc. Had her parents had less time to devote to her, had she been thrown more upon her own resources and had the companionship of children of her own age, she would not now be retarded.

To overcome the effects of her physical condition and her environment she needs a special kind of treatment, manual work and physical exercises to overcome her inco-ordination and lack of control of movement and freedom to develop personality, initiative, poise, vivacity, etc. This freedom she cannot get in her home. At the suggestion of the Clinic she was placed in a private school in a city near her home. She boarded with a friend of her mother's in the city. The home afforded her more freedom and the companionship of another girl a little older than herself. The school offered her further companionship with other children and was small enough to make individual instruction possible. Her progress during her year in this school has been favorable and seems to justify a favorable prognosis in her case.

## GABRIEL K.

Gabriel was brought to the Clinic in 1914 by his mother because she wished advice as to his training. He was an attractive little Syrian boy with black hair and large, brown eyes. At the age of one year he had had a severe attack of polio-myelitis, the effects of which were still noticeable in the limp in both legs and in his slow movements. He was flat-footed and wore anatomic shoes. Gabriel's health had always been good with the exception of the polio-myelitis.

No specific mental defects were revealed in the mental examination except that the mental reactions were somewhat sluggish and he seemed unimaginative and practical. His age at this time was five years and four months.

Gabriel attended the Montessori class conducted by the Psychology Department in the summer of 1914. At first he seemed a very discouraging case. He showed almost no initiative, lacked strength and energy and was very obstinate. His attention was not persistent. Comprehension was slow and he fatigued quickly. But during the six weeks there was a marked improvement. His concentration of attention improved, his attention became more persistent and he developed some initiative, although still very imitative. His comprehension improved and he developed better co-ordination of movement.

Gabriel's improvement during the six weeks was so favorable that in 1915 he was admitted to the restoration class in spite of his age which was only six years and five months. It was found in the restoration class that Gabriel had no idea of obedience and was still very obstinate. He showed the same deficiency in initiative that he had shown in the Montessori class the year before. He seemed unable to find anything to do for himself but waited to be amused. The emphasis in Gabriel's case was placed on discipline rather than upon academic work. An attempt was made to teach him obedience and to arouse him to make some effort for himself. This attempt was fairly successful. From a sullen, obstinate child with almost no initiative he developed into an obedient, happy child capable of keeping himself busy.

His progress in academic work was satisfactory. He learned to recognize the numbers 1, 2, 3, written on cards and to select the corresponding number of objects. He learned to fill in Montessori insets with colored crayons. Finally, from the circle an apple was developed by adding a stem to the circle. Then from the apple an "a" developed

and this led to other letters, "d," "g," etc. By the end of the session he could recognize and write from memory several words. While his progress was not rapid he gave the impression of being a normal boy slightly below the average but capable of making normal school progress.

In the fall following Gabriel's attendance upon the restoration class he was placed by his mother in a small, private school. From the reports of his work at the school received through his mother he seems to have made satisfactory progress there with normal children.

Gabriel's birth was normal in every way although his mother was very nervous during her pregnancy. He was slow in walking as a result of the polio-myelitis. He talked at the usual time and had no difficulty in teething. There have been no miscarriages in the family. There is one other child in the family, a girl of four, who seems normal in every way.

Gabriel's mother stuttered as a child. Otherwise, the family history is negative. The father deserted the family for a time but has returned. He has never been much help in supporting the family. The mother has supported the children by boarding and caring for other children. The mother, while she gives the child good care, is not very intelligent and her discipline is neither firm nor consistent.

Gabriel is deficient in energy and his mental processes are slow. He fatigues quickly. His analytic concentration of attention is sufficient but his attention is not persistent. This is probably due to inadequate discipline as his persistent concentration of attention is fair when he is interested. His attention is sufficiently distributed but not very alert. His range of interests is somewhat limited.

Movements are not well-controlled nor co-ordinated, and he is very deficient in initiative. Moreover, his responses lack complexity and vivacity. His imageability is normal but his imagination is not as fanciful as it should be at his age. His powers of observation seem normal as also his understanding. He has sufficient intelligence. His retentiveness is normal and his memory trainable. Sensitivity is normal.

Gabriel's chief defects, then, are in vitality, persistent concentration of attention, range of interests, control and co-ordination of movement, initiative and imagination. Mental processes are slow. The deficiency in vitality is slight and is due to his physical condition. The effects of the polio-myelitis are noticeable in his poor control and co-ordination of movement. But that this deficient control and co-ordination of movement can be much improved by manual work and physical exercises was indicated by the summer's observation. The remaining

defects in attention, initiative and the limitation in range of interests seem to me to be partly accounted for by the lax, inconsistent and unintelligent discipline in the home. In the restoration class where he was encouraged and sometimes forced to think for himself he became interested, happy, busy and capable of applying himself to a task and of finding something to do for himself. This favorable response to the freedom of the restoration class makes me hopeful of Gabriel as a restoration case under proper environmental conditions. His satisfactory progress in the private school in which he has been placed makes me still more hopeful.

It is probable that Gabriel's heredity is not especially high but that by birth he is "low normal." His mental condition has been complicated by the effects of the polio-myelitis and by the wrong kind of discipline in the home. With good care and adequate discipline he should be able to make normal progress in school.

## GLADYS K.

Gladys was sent to the Clinic in April, 1915 by one of the hospitals in the city because of her school backwardness. Her age was then eleven years. Gladys had entered school late because of an attack of scarlet fever at the age of five years. She began to go to school at the age of seven, entering the first grade. During her first semester at school, she was absent a great deal because of an attack of pleural pneumonia. The following term she re-entered the first grade in another school, spending two terms and a part of a third in the lower first grade, then the rest of the term and another term in the upper first grade. She spent one term in the lower second grade; then, upon the mother's request, was promoted to the upper second grade. In the upper second she obtained as good reports, the mother said, as she had received in the lower second grade. After spending a year and a half in the upper second grade, she was promoted to the lower third grade. But, after three weeks in the lower third grade, it was found that she could not do the work and she was demoted to the second grade. Her attendance at school had been regular and her conduct good except that she was inclined to talk a good deal. Reading and spelling were good and writing fair but in number work she was very slow, in fact seemed quite unable to grasp it. The mother felt that the teacher neglected Gladys, not calling upon her to recite.

Gladys played with children the same age and got along well with them, not allowing them to impose upon her. She had an "intimate" friend of twelve, another of seven. She had many playmates but her mother did not allow her to play much with other children. At home she was irritable, frequently losing her temper. She had nervous habits like brushing back her hair, playing with her handkerchief, etc. She seemed quite normal in her play life, playing with dolls, school, etc. She played the piano by ear. Her mother helped her to dress although she was able to dress herself.

Her health was good except for her nervous irritability. There was no enuresis. She had not yet reached puberty. She had had pleural pneumonia once and measles three times but with no serious after-effects. After scarlet fever she had had a running ear and had been deaf for three weeks but recovery had been complete and her hearing was at this time excellent.

Birth was instrumental but labor was short, she was not partially asphyxiated, was not a blue baby and cried immediately after birth. There is a possibility that her birth was about two weeks premature. She was a healthy baby, not troublesome and in every way like other children. She walked and talked at the usual time and cut her first tooth at the age of eight months.

There is one other child in the family, a baby of seven months who appears to be normal. When Gladys was twenty months old the mother had a miscarriage, supposedly because of her weakened condition after typhoid malaria. The family history as reported is negative. Both the father and the mother are stout. The father is an X-ray manufacturer. The home is very comfortable and is attractively furnished.

In the mental examination Gladys seemed at times to become confused and not to understand what was expected of her. Her auditory memory span was limited to four digits. She read fairly well from a second reader, and read a simple passage in a fifth reader but her reproduction of what she read was very meagre. One or two new words read in the first line of a story were forgotten by the third line. There were other evidences of defective retentiveness. In making change she hesitated and upon questioning it was discovered she had forgotten the amount asked for. Her time was long in the mechanical tests but she seemed to comprehend the idea of the test without a great deal of difficulty. Her mental age by the Binet scale was eight years. Diagnosis was deferred and it was decided to observe her in the 1915 restoration class.

In June Gladys was promoted to the lower third grade although the teacher was very doubtful as to what Gladys would be able to do in the third grade. Gladys' mother had been drilling her on the multiplication tables so Gladys was able to multiply and divide but could not add and subtract. She did not know the combinations in addition and subtraction and had to count them up on her fingers.

When Gladys entered the restoration class her age was eleven years and three months. She was very talkative and sociable with the other children and got along well with them. In the class she was apparently interested and occupied but accomplished very little. She answered questions at random and was not at all troubled when her attention was called to a mistake. Her mental attitude toward herself and her work was one of complete satisfaction, whether her work were poor or good. She seemed incapable of concentration.



Her reading was fair third grade level but, if questioned as to the meaning of a passage read she had no grasp of it and could only reproduce it if questioned step by step. Her spelling was fair third grade level.

Gladys' number work was only second grade level and poor. In adding she frequently forgot to carry. She knew her multiplication tables but had difficulty in applying them to examples in multiplication. She was unable to apply her arithmetic to problem work. Any new process she comprehended slowly and had to be taught but one step at a time.

In the physical exercises the movements were energetic and forceful and her attention and interest good. Her movements were, however, largely imitative.

Her chief defects are in understanding and intelligence. Associability is very defective as indicated by the auditory memory span of only four digits. Her retentiveness is only fair and her memory not very trainable. She is quite deficient in analytic concentration of attention. Her attention is sufficiently distributed but not very persistent. Her movements are well controlled and co-ordinated and her initiative is sufficient but her responses are not complex. Mental processes are very slow. Vitality seems to be normal.

Gladys is not a restoration case. She is incapable of making normal progress in school and can never reach the general level of a seventh grade pupil.

## ELIZABETH R.

Elizabeth was first brought to the Clinic in September, 1914 by the superintendent of a home for delinquent girls. She was brought for advice and diagnosis because of her backwardness in school and because she was reported to be stubborn and wilful. She was then about twelve years old, there being some doubt as to the date of her birth.

Her history is an interesting one. Nothing is known of the birth and babyhood history. In 1910 the family was reported to a charity organization in Philadelphia by Elizabeth's grandmother because the father was not caring properly for his family and because the children were hungry most of the time. The relatives were unable to assist and were distressed because of the neglect. The family was supervised by the charity organization for a year and, as there was marked improvement in the living conditions, the case was dropped. In 1912 there was a new complaint. The neighbors reported that the mother drank, was profane and quite incapable of caring for children. As a result of the investigation of the home the parents were arrested. As the father was a steady worker he was allowed to go on suspended sentence. The mother was sent to the House of Correction and the children placed in the custody of the charity organization. Elizabeth was placed in an institution for the care of dependent children and, after a short time transferred to another similar institution. Here she was reported to be stubborn and wilful and to have a demoralizing effect upon the other children. So in January, 1914 she was transferred to an institution for incorrigible but not immoral girls and was still an inmate of this home at the time of the examination at the Clinic.

There were seven other children in the family. Little is known of them except that one boy has been reported since to swear, lie and steal. No abnormalities have been reported in the family.

In the home Elizabeth was affectionate and gave little trouble in discipline except that she was occasionally disobedient. She got along well with the other girls and did not allow them to impose upon her. She was quick and alert but inclined to be irresponsible.

Her health seemed good except for a succession of styes. During the summer she had had a running ear.

Her school life had been so irregular that her school history did not throw much light upon the case. The last time she had attended public school she had been in the second grade. She was attending school in

the home but, as she had been in the institution so short a time, there had not been much time for observation. She seemed to memorize readily but to forget quickly.

The physical examination revealed a retardation in both height and weight of from one to two years. Measurement of her head showed her to be both microcephalic and dolichocephalic. She was left-handed. The superintendent of the home reported that she had not yet reached puberty.

She read easily from a second reader but her reproduction of what she read was scanty and meager. She was unable to accurately perform the fundamental operations in arithmetic. Her auditory memory span was limited to five digits. By the Binet-Simon scale there was a mental retardation of from one to two years. It was felt as a result of the examination that mentally Elizabeth was below standard although not feeble-minded.

In May, 1915 Elizabeth was brought to the Clinic for a second examination. Her age was then thirteen years and four months. Her mental age by the Binet-Simon scale was twelve years. Her auditory memory span was only four digits. Her school work was about third grade level. The institution reported her troublesome, hard to manage and not affected by punishment. The previous diagnosis was confirmed and it was decided to admit Elizabeth to the 1915 restoration class for observation.

Elizabeth had made practically no progress in school work since being admitted to the institution, although she attended school regularly. She was doing only first grade work, it was reported. She seemed to grasp things quickly but did not retain them and showed no ability in any special line. Punishment made little impression upon her. She did not hold resentment against those who punished her, in fact seemed to have completely forgotten the punishment after about five minutes. Threats were unavailing. She seemed childish in both her play and her mischief. She was never impertinent nor saucy. She craved attention even to the extent of occasionally hurting her finger in order to get sympathy. She seemed to have no sense of pride or shame. She seemed, not immoral, but unmoral.

In the restoration class Elizabeth was obedient, happy and very responsive. She was affectionate with the other children and enjoyed their companionship. Her craving for affection was at times pathetic. Her desire to attract attention often made her self-conscious. She was easily influenced and very fond of approbation. She was inclined to

be careless and irresponsible and to shirk a task, such as setting the table. But, if given definite tasks to perform for which she alone was responsible she did them quickly and well. She had to be forced to depend upon herself. She needed considerable restraint and much supervision as with too much freedom she grew more careless and irresponsible. She tried hard at grade work and always finished it without being watched. If allowed to choose her own work, however, she chose the easier things to do. Her attention was easily distracted; she seemed incapable of concentrated attention. She was fond of talking and of answering questions but answered impulsively without stopping to think. If forced to stop and think out her answers she was capable of doing so. She had plenty of initiative and could always find something to do for herself, although her choice was not always wise. For a girl of thirteen she seemed very childish.

Her reading was good third grade level. Her reproductions were full, even voluble and given in a very interesting way. She spelled during the summer review words from a third grade speller, obtaining marks always above 90. Her language work was exceptionally good for third grade both in written and oral work. She told and wrote stories very well, usually choosing fairy stories she had read. She often repeated the exact words of the story, interspersing the words of the book with words of her own choosing.

In number work she could add but needed further drill in carrying. She had to be taught borrowing in subtraction. In multiplication she needed further drill. Her comprehension of any new point was slow and she needed more drill than the average pupil.

Her handwork was good for a beginner both in weaving and in basketry. In the physical exercises she was not especially interested, gave poor attention and was inclined to shirk, although able to do the exercises well when forced. Her movements lacked energy.

Her attention was deficient in both analytic and persistent concentration but was well-distributed and sufficiently alert. Her range of interests was restricted, her interests being those of a younger child. Her movements were well-controlled and co-ordinated and she had plenty of initiative but her choice of what to do was not always wise. Imageability was sufficient but associability very deficient, her auditory memory span being only four. This made learning very slow for her. Her imagination lacked complexity. Her powers of observation seemed to be very good. Understanding was a little slow and intelligence somewhat defective. Retentiveness seemed fair although the reports of the

home were unfavorable on this point. But her most serious defect was her irresponsibility and inability to take care of herself.

Although Elizabeth will never make up her grade retardation she can probably be trained to earn her own living by some light industrial work such as sewing or caring for children. But she will need close supervision and firm though kindly discipline. She would be easy to manage through her love of approbation and craving for affection. But these conditions amount to partial segregation, so Elizabeth is not a restoration case.

## HENRY S.

Henry first came to us in March, 1915 when he was almost fourteen years old. He was brought to the Clinic by his father because of his pedagogical retardation and a very serious speech defect. Articulation was faulty and there was a very bad stammer. The father reported that Henry was very nervous and that his speech was always worse when excited or after strenuous exercise such as running or skating. Outside of school Henry seemed to the father normal although not as bright as the other children in the family. In doing little things about the house he seemed as capable as the other children. He got along well with other children but played with children of his own grade in school who were of course younger than he was. He was easily imposed upon in play.

Henry started school late because of his speech defect and attendance had been irregular due to his nervousness. After six years of school he was in the upper fourth grade of parochial school. Even then his lessons were not all of fourth grade level and his father felt that he had been advanced because of his size. Reading and spelling were very poor and not over second grade level. Arithmetic was very much better. Henry was able to do fractions and long division.

Other than the nervous condition which had been diagnosed as chorea Henry's health was good. The school physician had advised an operation for the removal of adenoids but the family physician felt that an operation was not necessary. Henry was a mouth-breather.

Birth was normal in every way. The mother was of a nervous temperament and was nervous during her pregnancy but was otherwise healthy. Henry was a healthy baby until he was a year old and began teething. After this he was delicate and did not grow well. He was reported by the father to have walked at the age of nine months, but with uncertainty and with his head forward. He did not talk until four years old and then poorly.

There were three other children in the family ranging in age from three years to ten, all apparently normal and healthy with no speech defects. One child died in infancy of a growth underneath the tongue of unknown character. This child was an eight-month's baby, delivery having been brought on by an acute kidney trouble. As reported the family history is negative. The father is a hatter and appears to be

intelligent. The home is clean and comfortably furnished although cluttered with bric-a-brac.

In the physical examination it was found that Henry had a rudimentary uvula, his palate was anemic and the hands cyanosed. The lower gums were hypertrophied. At the eye clinic it was found that there was some hypermetropia and glasses were prescribed. The nose and throat examination revealed a chronic catarrhal rhinitis and nasopharyngitis and a small adenoid mass.

The mental examination revealed considerable retardation in reading and spelling. The articulation was so faulty that it was almost impossible to understand him. His reading was poor second grade level. He was unable to read very simple written and printed directions such as "Get up and shut the door and then open it again and then sit down in the other chair." "Pleasant" he spelled "plesmant," "watch" "wached," "tan" as "tone." Arithmetic was very much better. He made change readily and by the correct method. He was able to solve simple problems if presented orally. By the Curtis arithmetic tests his arithmetic was third grade level.

Henry seemed intelligent in general conversation and did very well in some of the mechanical tests. He did the form-board test quickly and intelligently, arranging the blocks well for rapid placement. He made two errors in the Healy Completion Test but both were logical ones. In the Healy Construction Puzzle B. he failed after some effort but succeeded on the second trial after being shown the blocks in place. His auditory memory span was six digits. By the Binet-Simon scale there was a retardation of almost five years.

Henry was diagnosed tentatively as feeble-minded but it was decided to observe him in the 1915 restoration class.

When Henry entered the restoration class his age was exactly fourteen years. In appearance he was very normal, tall and well-nourished, very likeable and attractive. His disposition was sunny and he was popular with the other children in the class.

In arithmetic Henry was able to perform all the fundamental operations and addition, subtraction, multiplication and division of fractions and mixed numbers. He was quick and accurate. In problem work he was very much handicapped by his reading difficulty but solved readily two-step problems presented orally. He was very intelligent about solving problems, working them in the shortest way and using illustrations to help him. His explanations of his problems showed that he really understood them.

He had great difficulty with reading and spelling. His recognition of words was very poor and his retention of letter combinations very defective. He was able to get some of the words by the context. He was helped somewhat by phonics but, because of his faulty articulation, phonics often could not help him. His reproductions of what he read were very good and showed thought. His writing was good.

Considering his grade retardation he had a good fund of general information concerning history and geography facts and points of scientific interest. His vocabulary was good.

He was not interested in the physical exercises or the folk-dancing largely because he felt them to be "too babyish" for a boy of his size and age. He was able to interpret the commands, however, and executed them well when willing to make the effort. His comprehension of the commands was good.

He was especially interested in the handwork. During the six weeks he made a large hammock, a small basket for collar buttons and a book-rack. He worked quietly and efficiently and with little direction from the teacher. He planned his work beforehand, displaying individuality in his planning and intelligence, ingenuity and initiative in the execution of his plans.

Henry is a very interesting case. Outside of his work in reading and spelling he made a very favorable impression upon us. He was certainly intelligent. This was shown in his handwork especially but also in his solving of problems in arithmetic. Of course his arithmetic was very much retarded by his grade retardation and reading difficulty but he was able to solve problems by the shortest method, to use illustrations and diagrams intelligently and to explain his results clearly. Even in his reading he was intelligent in filling in from the context when he did not recognize the word or in substituting one word for another he was unable to articulate. His powers of observation were very good. He "sized up" the parent of one of the children quite accurately, we thought. His attitude toward his work was childish. He was not serious about it and, although self-conscious before the observation class of teachers, not sufficiently troubled by his own shortcomings. He seemed in fact proud of himself because of his proficiency in handwork and arithmetic. Of course he has lacked the opportunity to compare himself with others of the same age but does not seem ashamed to accept help in school work from a sister four years younger.



His chief defect is his inability to retain letter combinations. This defect in retentiveness does not seem to extend to number combinations. His auditory memory span is slightly limited. There are no defects in attention. His movements are well-controlled and coordinated and he has plenty of initiative.

Because of his defect in retentiveness he cannot learn to read, hence is uneducable and can never reach the educational level of a seventh grade pupil. On our present plane of civilization which demands reading as a tool one doubts whether Henry can become self-supporting. He is of the type of defective which Dr. Witmer calls a "congenital illiterate." He is not a restoration case.

## JACOB S.

Jacob was first brought to the Clinic in January, 1915 by a probation officer because of his backwardness in school. At this time Jacob's age was eleven years and eight months. He was in the lower third grade of public school. Jacob had entered school at the age of six spending two years in each grade. His arithmetic and writing were reported by the school to be very good but reading and spelling were poor. His conduct in school was poor. He was reported to be disobedient, careless and inattentive. Attendance at school was very irregular due to his own illness and that of other members of the family. He had twice changed schools.

In the home Jacob was giving no trouble except that he got along poorly with his brothers and sisters. He played with children of the same age but allowed them to impose upon him. He was very fond of roller-skating and of riding a bicycle. The family consisted of the father and mother and six children besides Jacob, ranging in age from sixteen months to fifteen years. The house was a six-room house but, as the father kept a second-hand furniture store, most of the house was used as a storage place for old furniture. Only two rooms were used for sleeping rooms and one additional room served as a living room in which the family of nine cooked, ate, played, studied, etc. The house was dirty and, of course, cluttered with furniture. The parents were poor, ignorant Jewish people, the children poorly cared for and discipline in the home inadequate.

Jacob's health was fair. Tonsils and adenoids had just been removed. There was no history of enuresis. He had had an infantile umbilical hernia which had been successfully treated. Later he had had a scrotal hernia which was reduced by an operation. His palate was slightly contracted and he had a mild pigeon breast.

The birth history was favorable in every way. He was a healthy baby, not at all troublesome and walked and talked at the usual time. The other children in the family seemed to be of normal mentality. One child had died in infancy of pneumonia. There had been two miscarriages in the family. Otherwise the family history as reported was negative.

In many of the mental tests Jacob did very well. He made change quickly and intelligently. Associations were very ready; he gave eighty-one words in three minutes. He solved the Healy Completion test

quickly giving intelligent reasons for all his placements. His auditory memory span was five digits; he succeeded once with six digits and gave six digits once with one inversion. On the Binet-Simon scale he tested about at age.

His arithmetic was very good for third grade. He was able to perform the fundamental operations quickly and accurately. He was also able to apply his arithmetic to the solving of quite complicated problems. It seemed probable that he could have done arithmetic of a higher grade level had he had instruction in it. Reading was very poor. His recognition of words was so poor that he was unable to read from a Primer. He tried to fill in from the context when he did not know a word or to reason it out from the picture. Spelling was equally poor. "Now" he spelled "elts," "coat" "klot," "nest" "list." His hearing was normal. He was able to hear both sentences and separate words with no difficulty. There was no speech difficulty. Jacob was diagnosed as a case of congenital word blindness.

In February, 1915 at the suggestion of the Clinic Jacob was transferred to a special class. Jacob became very much interested in the drawing and manual work of the special class and did very well in it. His conduct was still poor. He was reported to be talkative, impudent, sulky and subject to violent fits of temper.

It was decided to admit Jacob to the 1915 restoration class. His age at the time of the opening of the class was twelve years and two months. He was a tall, thin boy with a dark, sallow complexion and very bright, brown eyes. He was poorly dressed and often dirty. He made few advances to the children but responded readily to their advances. He was fond of the younger children and very kind to them. He was always amiable and good-natured and gave no trouble in discipline. He played well with the other children of the class but allowed them to impose upon him.

Jacob preferred handwork to academic work. If not interested in a lesson he did not apply himself and practically nothing was accomplished. If interested he would give good attention to a lesson and accomplish a good deal.

His fund of general information was fair but there were curious gaps in it. His information was not well organized nor controlled.

He was very fond of weaving, basketry and woodwork and did fairly good work. He frequently neglected other lessons to do handwork.

His work in arithmetic, spelling and reading confirmed the findings of the Clinic. He did well in arithmetic although he was retarded

through his grade retardation and consequent lack of instruction in arithmetic of a higher grade level. With reading and spelling he could do almost nothing. He could not retain letter combinations whether presented visually or orally, hence was unable to recognize words in reading or to spell even the simplest words.

Jacob's chief defect is this specific defect in retentiveness or inability to retain letter combinations. He seems to have no difficulty in retaining number combinations. His auditory memory span is limited to five digits but his associability in the free association test was very good as he gave eighty-one words in three minutes. However, his associations are not well-controlled as shown by the gaps in his fund of general information and his sometimes random responses to questioning. His interests are limited in range; his interest in academic subjects is deficient. Initiative is somewhat deficient. Analytic and persistent concentration of attention are normal; his attention is sufficiently distributed but not very alert. His movements are well-controlled and co-ordinated. There seems to be no defect in imageability. Vocomotor imagery predominates. Observation and understanding are sufficient and intelligence fair. Sensitivity is normal.

Jacob is not a restoration case. His inability to retain letter combinations makes it impossible for him to ever learn to read and spell, therefore he can never acquire an education. He is of the type which Dr. Witmer calls "congenital illiteracy."

### HARRY A.

Harry was first brought to the Clinic in April, 1914 by his grandmother because of his backwardness in school. His age at this time was seven years and ten months. In appearance he was normal, an attractive Scotch lad with sandy hair and blue eyes. He was a very active child. At home Harry seemed quite normal in his reactions, his grandmother reported. He played like other children although he was more destructive than most children.

Harry had spent three terms in school. He had been promoted to the second grade but had been unable to do the work, and so was demoted to the first grade. The teacher complained that he was lazy and wasted time. He did not like school and had to be almost driven to school. The class was large and there were only half-day sessions in Harry's grade.

In the mental examination given at this time no specific defects were discovered except a red-green color blindness which would of course not interfere with school progress. The mental retardation as measured by the Bint-Simon scale was very slight. He read fairly well in a first reader but mainly from memory of the story rather than by recognition of the separate words. He often filled in the gaps by the context. Spelling was poor. It was felt that Harry's backwardness in reading and spelling might be due to lack of careful teaching owing to the size of the room and the half-day sessions.

The physical examination revealed a slightly protuberant abdomen and navel. No rupture was apparent. The second teeth were rather slow in coming. His height and weight were normal for a boy of seven. The appearance of his skin suggested anemia. The tonsils were seriously hypertrophied and adenoids probable.

Nothing abnormal was revealed by the birth and babyhood history. He walked and talked at the usual time and seemed in every way like other children. At the age of four years he was struck by a milk bottle. He suffered much pain at the time but there was no wound or swelling and the accident has left no scar. He had had seriously swollen glands on the right side of the lower neck. He slept well although with his mouth open. There was no enuresis, but some difficulty in retaining urine.

No abnormalities were reported in the family. Harry is an only child. His mother died soon after Harry's birth as the result of a cold

contracted after her confinement. Harry's maternal grandmother took him when he was nine weeks old and has taken care of him ever since. He apparently receives good care. The house is untidy and cluttered with furniture but is not dirty. Discipline in the home is probably inadequate.

Upon the advice of the Clinic, Harry's tonsils and adenoids were removed. His grandmother also tried to help him at home with his school work but she grew impatient with him because of his slow progress and not much was accomplished.

In May, 1916 Harry was brought again to the Clinic for re-examination. His school progress had not improved. After spending another year in the first grade, making five terms in all, he was promoted to the second grade. After one year in the second grade he was promoted to the third grade but was unable to do the work and had to be demoted to the second grade. By this time his age was nine years and eleven months. By the Binet-Simon scale the mental retardation amounted to one year and nine months. His reading in the second reader was only fair and his reproduction of what he read fair. Number work was no better. He did not know the simplest combinations in addition and multiplication. Spelling was very poor.

Harry was admitted to the 1916 restoration class for observation. By this time his age was ten years and one month. His conformity was poor and he was a very troublesome member of the class. His lack of self-control was serious. He seemed to be incapable of inhibiting any impulse and so was easily influenced by the other children in the class. Nor was there any satisfactory response to the freedom of the restoration class. At the end of the summer session he showed as little ability to take care of himself and as little effort toward self-control as he had shown in the beginning. The presense of the observation class of teachers made him self-conscious and he constantly played to the gallery.

Writing was fair but very careless. Reading was about second grade level but poor. His poor recognition of words and only fair articulation resulted in a slow and hesitating expression. Considering his poor recognition of words his reproduction of what he read was good. Spelling was very poor. He was unable to retain letter combinations and was not intelligent enough to be helped by phonics. When the sounds of the letters were emphasized he was able to recognize a few of them but could not discover the sounds for himself. He made little progress in reading and spelling during the summer.

His progress in number work was no greater. He showed the same inability to retain number combinations that he had shown with letter combinations. An attempt was made to teach him multiplication during the summer but his comprehension was so slow that he made little progress.

In the physical exercises he was dependent largely upon imitation. Energy and rhythm were good but attention poor.

Harry's most serious defect is his poor retentiveness which seems to include both letter and number combinations. His memory of ideas and events seems fair. His auditory memory span is limited to five digits and is probably also a factor in his poor memory. From the observation during the summer it seems probable that his memory is not trainable. In addition to the defective memory there are serious defects in attention. Analytic and persistent concentration of attention are poor and his attention is not alert. Intelligence is only fair and is limited in range. Understanding appears to be fair but is somewhat limited in range. Sensitivity is normal except for the red-green color blindness.

With his defects in memory and attention and with only fair intelligence and with a limitation in range of both intelligence and understanding, Harry is incapable of acquiring even the rudiments of an education and cannot be made self-supporting. With his poor conformity he is even less able to take care of himself. He is then not a restoration case. His defects are probably congenital. There is no evidence of their being hereditary. Nor is there any retardation shown in the babyhood history but his defects are of such a nature that they would probably not reveal themselves until he began to try to learn to read and write. Inadequate discipline in the home possibly accounts partially for Harry's poor conformity but I am inclined to think that his poor conformity is due in large measure to his inability to control himself.

## BERTHA B.

Bertha was first brought to the Clinic in May, 1913 when she was almost seven years old. The school reported her lazy and very troublesome. She was then in the first grade in school, having entered in September, 1912. Her school work was poor for first grade work. She could recognize only a few simple words and in number work, although able to work out simple sums when she applied herself, preferred to guess at the results.

The father had diabetes and was unable to work much of the time. The mother supported the family by washing. The house was dirty and Bertha poorly cared for. Discipline in the home, while severe, was unintelligent and ineffective.

Bertha showed two years of retardation in height and weight. But she was well-proportioned in spite of her small size. She had always been healthy. She had had diphtheria in 1911 followed by a "running ear" but this trouble had disappeared and her hearing seemed to be normal. The birth and babyhood history were mostly negative. Birth was instrumental but labor was easy, she was not injured and suckled naturally. There is a report of indigestion in infancy, otherwise the babyhood history is negative. There had been one miscarriage in the family. Two children died in infancy; the cause of their death was not known by the mother. The mother was tubercular but reported that her health had been good while carrying Bertha. Otherwise the family history as reported is negative.

In the mental examination given in May, 1913 Bertha was prompt, lively and intelligent. She seemed excitable and very talkative. Her chief defect was her poor attention. Special class was recommended for her by the Clinic, but the mother refused to give her consent.

In June, 1914 after two years in the first grade Bertha was promoted to the second grade. In February, 1915 the principal of the school reported that he had tried Bertha under five different teachers but without result. In a mental examination given at this time Bertha showed considerable retardation in school subjects; her school work was not higher than first grade level. She showed the same defects of attention she had revealed in the previous examination. It was decided to enter Bertha as a member of the restoration class of 1915.

When she entered the 1915 restoration class Bertha's age was nine years and one month. Bertha was a rather troublesome member of



the class. She had little respect for authority, was always slow to obey and openly disobedient when she dared. She was very intelligent in figuring out just how far she dared go in defying authority. When refused permission to do what she wished by one teacher, she would go to another teacher. She was very responsive when the thing the class was doing fitted in with her own inclination but, if it did not, she responded slowly or not at all to class commands. She very much enjoyed attention and constantly played to the gallery if visitors were present. By the end of the first day she had established herself as "boss" of the younger children. She bossed their games, supervised their physical exercises or taught them to articulate correctly. She had little respect for the rights of other children but would pull down their houses in the sand, take their rulers or pegs and work on their handwork. The younger children did not resent her attitude toward them but she was very unpopular with the older children.

In academic work she made little progress. Her effort was poor, she was not interested and her attention was deficient in both analytic and persistent concentration. In number work she learned a few combinations in addition but preferred to answer at random. She learned the combinations readily when she gave attention to the lesson but did not give attention unless forced to. She was able to obtain an answer in addition concretely but, even then, was careless, easily distracted and more interested in drawing nests of colored eggs on the board than in using this device to obtain a correct answer.

Her reading was very much better than her number work. She read easily in a second reader although she made many careless mistakes because of her inattention. Her interest in her reading often succumbed to her greater interest in her surroundings. Her reproductions were good but she drew upon her fancy freely.

Spelling was only fair. This was due to her inattention and lack of effort. Retentiveness seemed normal but she did not give sufficient attention to the lesson to learn the words. With words that were spelled phonetically she had little difficulty.

In oral language she showed good powers of observation and intelligence in her answers to questions. But her imagination was little controlled by her memory. Written language was poorer than the oral.

In handwork Bertha accomplished little. She worked intermittently, discarding her handwork for anything which appealed more to her interest at the time. Her interest was transitory. She did not con-

plete even one piece of handwork during the summer. In learning any new handwork her comprehension was very good. She showed little planfulness in her handwork. She preferred work which was easy for her and quickly finished such as stringing beads.

In the physical exercises she was at first largely dependent upon imitation but, after she had learned the commands, was able to interpret. Her movements were well controlled and co-ordinated and very energetic but she wasted much energy in superfluous movements. Her interest soon flagged and she was easily distracted by her surroundings. She paid little attention to signals but executed the command when it best suited her convenience to do so. She spent much of her time bossing the other children and her own work suffered in consequence.

Folk-dancing appealed more to her interests. She learned the steps readily and changed quickly from one step to another. Her movements were quick and graceful and her attention alert and concentrated.

In the fall following her attendance upon the restoration class, Bertha was returned to the lower second grade. A decided improvement was noticed in both her conduct and in her work. She made a very satisfactory effort and sometimes remained after school to ask the teacher's help. Arithmetic was her only unsatisfactory subject. She was promoted in February to the upper second grade and in June to the lower third.

During the year her father had died of a diabetic abscess. Bertha and her mother were living with a cousin who paid half of the living expenses. The cousin's wife took care of Bertha and she was much better cared for than ever before, going to school with clean face and dress. A baby which had been born in 1914 was living with another cousin.

During the year Bertha had had considerable trouble with a running ear, which was causing a slight reduction in hearing. It responded readily to treatment but the family neglected the treatments. By summer the ear was again in a good condition.

Bertha was admitted to the 1916 restoration class. Her age was then ten years and one month. But in spite of the favorable school report Bertha made a very unfavorable impression upon us. In arithmetic she was able to add with carrying and subtract with borrowing but made so many careless mistakes that she rarely obtained the correct answer. She would add two columns in one, forget to carry, or borrow where it was not necessary. In problems she added indiscriminately. Her poor results were due to inattention and poor ap-

plication. She was not interested in her work and made no serious effort to accomplish anything.

The same inattention and lack of effort were noticeable in her reading. Her reading was third grade level but poor. Recognition of words was fair but seemed poor because of her inattention. She read more accurately backwards than forwards. Her mistakes were never unintelligent ones but she depended upon her imagination to supply the words where the recognition of the words required an effort on her part. Her articulation was good and her expression very good, even dramatic. Accurate reading of the words was in fact sacrificed to dramatic expression especially if an audience were present. Her spelling was even poorer than her reading.

But her poor conduct was even more serious. She made no effort to control herself. She was not affected by criticism and was immune to disapproval. Punishments which interfered with her pleasure or comfort had some effect upon her but the effect was not lasting. She still craved attention and seemed not to care whether the impression she was making were favorable or unfavorable provided she was making an impression. She was bold and forward, played like a boy and had no modesty.

Bertha's most serious mental defect is her poor analytic and persistent concentration of attention. Attempts to train her attention for two summers have failed. Her other mental qualities seem sufficient for normal progress. Her memory is not very trainable but not so much because of poor retentiveness but because of inattention while learning. Her defect of attention is so serious that it interferes with learning and makes school progress impossible.

Combined with this defect of attention is her deficient conformity. Her ideals are low, she lacks self-control and is immune to disapproval. Her only social instinct seems to be her desire to attract attention. Since social restraint will be ineffective with Bertha it will make her very dangerous. Even now she is not a fit associate for other children especially as she shows so much ability in managing other people. She would make a good "gang boss" whether the purpose of the gang were regular or otherwise. Her deficient conformity may be due to poor environment although the almost entire absence of social instincts indicates an innate defect. Even if her condition be due to environment it is now too serious to be corrected by a change in environment.

Moreover, she will never make up her grade retardation because of her defective attention combined with her lack of effort. She is then not a restoration case as she can be restored neither to sufficient ability nor conformity. She should be segregated for the benefit of society.

## HENRY B.

Henry was first brought to the Clinic by a social worker in October, 1910 when he was three years old because of failure to talk and general backwardness. He was able to say only a few words such as "papa," "mama" and "dada" and some of these were articulated in a high, unnatural voice. He understood what was said to him and seemed bright and intelligent in the examination. He learned readily how to blow but would make no effort at any of the elements of articulation.

The family is English and have been in this country only two years. During this time the charity organization has assisted the family financially and helped the father and mother to find employment. The mother is respectable and a good mother and has tried to manage her household on the small wages earned by her husband. The character of the man is not so good; he drinks and is able to earn only a small wage.

The social worker reported that Harry had been "backward" from birth. She gave no information concerning his birth or babyhood. Mrs. B. was pregnant at the time of the examination and Harry, being a troublesome child, made her very nervous, so she had applied for institutional care for him during her confinement. There was an older child, a girl of five years whom the father was willing to care for. Harry had been placed in a small boarding home.

As Harry had seemed bright and intelligent during the examination it was felt that speech training would be advisable for him and he was entered in the speech clinic of the Department. The speech training was continued until May, 1911 when his speech had improved very much although somewhat indistinct. He could imitate nearly every word he heard. At this time the case was closed.

In February, 1911 soon after Harry first came to the Clinic the charity organization found it necessary to break up the family. Mr. B. had been drinking heavily and had stolen a sum of money. Harry remained at the boarding home.

In November, 1913 the caretaker who still had charge of Harry reported that he was in the first grade in school and was doing nicely and talking well. He seemed like other children, full of life but thoughtful. He stammered at times. It was reported that the mother had also stammered. The father was now in prison on a six months' sentence.

Henry was not seen again by the Clinic until February, 1916 when he was eight years and six months in age. He was then in the upper

second grade. His attendance at school had been rather irregular because his home had been frequently changed. He had spent one year in the first grade, three terms in the lower second grade and this was his first term in the upper second grade. His school reports had been good until a short time previous to this visit when they had gone down. He had been influenced by other boys to play in vacant lots and had often been late for school. He was restless in school and the teacher was impatient with him.

In the mental examination given in February, 1916 Henry revealed several specific mental defects, a deficiency in comprehension and in intelligence, a limited memory span and a possible defect in retentiveness. On the basis of this examination it was decided to admit him to the 1916 restoration class.

In July when the restoration class opened, Henry's age was eight years and eleven months. He was tall for his age, one year accelerated in both height and weight. His hair was brown and his eyes dark. His head was rachitic, his face narrow and his ears large and ill-shaped. Circulation was poor as indicated by the pallor of his face, the rough skin and cyanosis of the hands. He was very nervous, unable to stand or sit still with constant choreiform movements. His nervous condition had been diagnosed at the Hospital as habit spasms. His eyes were hypermetropic but had been refracted in February.

Harry was very troublesome in the restoration class. He constantly annoyed the other children and interfered with their rights, making himself very unpopular with them. He seemed unable to take care of himself and quite lacking in self-control.

His writing was poor and untidy and showed poor co-ordination and control of movement. Reading was high first grade level. Recognition of words was only fair and he frequently misread words he knew due to his poor analytic concentration of attention. Expression was slow and halting, articulation only fair and his reproductions meagre and scanty. Spelling was poor, partly due to his poor attention during class lessons and partly due to his deficient retentiveness.

In number work he could add and subtract without carrying or borrowing. But, due to his poor analytic concentration of attention, he was very careless. He often added the digits of both columns in one column. He comprehended a new process readily but his retention was not so good. His work in the physical exercises was variable. It was good when he gave his attention to the commands but it was not

often that he made the effort. His energy and his rhythm were good and he comprehended new commands readily.

His speech was careless. He could articulate the words correctly but made no effort to do so. He omitted final consonants and made many substitutions.

Harry's attention is very deficient both in analytic and persistent concentration and in alertness. His memory span is limited and his memory is not retentive. He does not lack initiative and his comprehension is sufficient but his intelligence is defective and his vitality poor. He is markedly deficient in self-control. With this combination of mental defects Harry is not capable of acquiring the educational level of a seventh grade pupil, hence is not a restoration case. He is not qualitatively like a feeble-minded child but is probably a type of choreic defective. His poor early environment and neglect may have been a factor in his nervous condition and it is probable that the heredity is not particularly favorable.

## CHARLES CV.

Charles was first brought to the Clinic in July, 1915 by his father who was worried because Charles was so retarded pedagogically and who wished advice as to physical care for him. His age was then nine years and eight months. Charles had been promoted in June to the lower third grade. He had entered school at the age of six but had several times failed of promotion. Three times he had changed schools. Reading and spelling were fair, arithmetic and writing poor. Conduct in school was reported to be fair, effort poor. The teacher reported that Charles was lazy and seemed to be in a trance.

Charles' general physical condition was reported to be good. His tonsils and adenoids had been removed four years previously. He had almost died under the anaesthetic. Early in 1914 Charles had been kicked in the back by a large boy wearing skates. As a result of the accident the left leg was paralyzed for two weeks from the hip down. At the time of the examination the left leg was about a half inch shorter than the right one. He had no pain in his back except when hit, but often had a pricking sensation in the left leg. An operation on the right side of the brain had been advised by the orthopedic surgeon consulted but the father had opposed the operation. Charles had a spinal curvature which he was said to have had from birth. No serious illnesses were reported. He had broken his collar-bone three years previously but no serious consequences had been noted.

Birth and babyhood had been normal in every way. There were two other children in the family, a boy of eight and one of six, both apparently normal. The mother had died of uterine inflammation following a cold. In June, 1914 the children were entered in an orphan home. In the orphanage Charles was reported to be normal in every way. He played quite normally with children of his own age, racing and romping. His back was easily injured.

In the physical examination at the Clinic it was found that there was a slight spastic contracture of the left arm. His station was unsteady but he was able to stand on either leg, although the left leg was considerably weaker than the right. There was a slight lordosis. The shoulder blades were stooped, the right lower than the left. There were several slight stigmata, a protuberant abdomen, outstanding ears, a sloping forehead and a tongue abnormally large which most of the time hung out of his mouth giving him an unfavorable appearance.



No specific mental defects were revealed in the mental examination, and it was felt that Charles' lack of progress might be due to his physical condition and to the fact that he was attending school for only half-time sessions. It was recommended that he be given out-door exercise and possibly work in the orthopedic gymnasium if it seemed advisable.

The orthopedic dispensary advised no gymnasium work but that his condition be left to nature.

In May, 1916 Charles was re-examined at the Clinic. His age was then ten years and seven months. Charles was repeating the work of the lower third grade and his work in that grade was only fair. The teacher said he was lazy and would sit with his mouth open and tongue hanging out as if in a trance. Spelling and reading were especially poor.

Charles' father had remarried about six months previous to this second examination of Charles. The stepmother seemed fairly intelligent and interested in the children's welfare. The house was clean, well-furnished and attractive.

In the mental examination Charles showed considerable retardation in reading, spelling and number work. He read fairly well in a second reader, reading the words correctly but with poor expression. Spelling was poor. By the Curtis tests his arithmetic was second grade level and below. He was able to solve simple problems but was very slow in obtaining a correct answer. Although more doubt was felt of Charles' mental status than in the previous examination no definite conclusion was reached and it was decided to enter him in the 1916 restoration class for observation.

Charles was ten years and eight months in age when he entered the restoration class. He had been promoted in June to upper third grade. He was a very quiet and well-behaved boy and well-liked by the other children. Usually he was good natured but he had occasional sullen spells. He seemed quite deficient at first in both initiative and courage. As a result of the freedom of the restoration class he developed some initiative by the end of the session. His timidity we felt to be closely related to his physical condition. Charles' work varied very much from day to day. On some days he worked hard and accomplished much. On other days he accomplished practically nothing. This, too, was probably closely related to his physical condition.

His reading was good high second grade level. Recognition of words was good, expression fair and reproduction good. His fund of general information was that of a high second or low third grade boy. Spelling also was good second grade level.

In number work he was able to do addition with carrying, subtraction with borrowing and multiplication by one digit. He knew the process of division but needed further drill to get the correct result. His comprehension in any new step was very slow and he very easily became confused. He needed further drill in solving simple problems. His understanding was slow and probably deficient and he was not intelligent in interpreting problems.

In the physical exercises he gave good attention and his movements were forceful. Understanding was slow and he was slow in learning new commands. Rate of movement was so slow that he had difficulty in keeping up with the class. In the swimming he accomplished little as he was afraid to go into the water and considerable urging was necessary to persuade him to go in.

Charles' chief defect is the slowness of all his mental processes. Comprehension is very slow, probably deficient and intelligence less than fair. Attention is sufficient and retentiveness good. The limitation of his auditory memory span to five digits indicates a defect in associability which is probably of significance in accounting for his slow learning. Movements are sufficiently controlled and co-ordinated. Vitality is deficient and he lacks initiative.

It is the slowness of the mental processes and consequent slow learning which account for Charles' slow progress. His work is fair in quality for the grade he is in but at almost eleven years of age he is only in the third grade. He is a proficient second or low third grade pupil but at his age he should be at least a proficient fourth grade pupil. As his slow mental processes make progress so slow it seems unlikely that he will be able to complete the sixth grade by the time he is sixteen. It has taken him over four years to complete two grades so it is probable that he cannot complete the remaining three and a half grades in the five years left to him.

His poor physical condition may account somewhat for his slow progress but I am inclined to think his slow progress is due to a defective nervous system, one not sufficiently permeable to new impressions. This condition of the nervous system is probably innate, as indicated by the many stigmata, although it may have been induced by the injury noted above. I am very doubtful of Charles' ultimate restoration.

## EDWARD D.

Edward was referred to the Clinic by one of the hospitals in Philadelphia because of pedagogical backwardness and the report of a poor memory. He had entered public school at the age of six years, spending two years in the first grade and a year in the lower second grade. In June, 1916 he was promoted to the upper second grade. Attendance at school had always been regular and his conduct in school good. The teacher reported that Edward forgot his arithmetic and spelling.

Edward's health was good except for occasional headaches. Tonsils and adenoids had been removed. The genital development was slightly minus.

Edward did not walk until he was twenty months old but he was a fat, heavy baby. He did not talk until between two and a half and three years of age. His first tooth he cut at seven months. He was a healthy baby, not troublesome and seemed in every way like other children. His birth was normal.

The family history is negative. There are four other living children in the family, all apparently normal. One child died in infancy of summer complaint. The house is clean and well-cared for, although sparsely furnished. The mother seems to be intelligent. Edward is well-cared for and discipline in the home seems to be adequate.

After a clinical examination Edward was admitted to the restoration class of 1916. His age at the opening of the class was exactly nine years. He was a quiet and well-behaved boy, attractive and very normal in appearance except for an infantile nose which was probably due to the effects of the adenoids. He was small for his age and measurement showed that there was a year's retardation in height. He was active in play and got along well with the other children in the class. At first he seemed to lack initiative but, as he became acquainted, his initiative developed.

In the restoration class his writing was found to be good. His reading was good high second grade level. Spelling was not quite so good as the reading but was fair low second grade level. His mistakes in spelling were logical ones and he was able to use phonics intelligently. In number work he was able to do addition with carrying, subtraction with borrowing, short division and simple multiplication, Although slow he was accurate. He was able to solve simple problems in addition and subtraction.

In fact Edward gave the impression in the restoration class of being a very normal boy. Appearance and behavior were favorable. The quality of his school work was good and he had no special difficulty with any subject. His comprehension was quick. He was taught addition with carrying only once and not only comprehended it readily but retained it well. We failed to find the defect in memory reported by the school. His mental processes were slow. One often had to wait for his responses but, when the response came, it was good. This slow response sometimes gave one the impression on superficial observation that he had not understood. Memory span, both auditory and visual were limited. His auditory memory span tested by digits was five; the visual memory span tested by letters four. This made learning somewhat slow for Edward and was probably a factor in the slowness of his mental processes. His intelligence was not defective. He was intelligent enough to spell phonetically and to apply his arithmetic to problem work. He was slightly deficient in energy, in alertness of attention and in vivacity. Other than these defects he had no specific mental defects. His attention was normal both in analytic and persistent concentration and in distribution. His range of interests was normal for a boy of nine years. It was not difficult to interest him in school subjects and he was normally interested in play. His movements were well-controlled and co-ordinated. Imageability was sufficient and his imagination was normally complex for a boy of nine. Initiative seemed deficient at first but improved as he became better acquainted. Auditory sensitivity was slightly subnormal for spoken words but normal as tested with a watch. In the mental examination Edward tested almost at age on the Binet-Simon scale.

I am inclined to think that Edward is a restoration case. The history of late talking and walking is against him as is also the slightly minus genital development. But both of these are too slight to be of much significance. The lack of school progress and the report of a poor memory are more serious. However, during the period of observation in the restoration class, it was found that the quality of Edward's school work was good, he comprehended new processes readily and retained them well. Of course it is advisable to observe Edward for a still longer time to test his retentiveness over a longer period. But it seems possible that his lack of school progress may be accounted for by his not being given sufficient time for learning in school and allowance not being made for the slowness of his mental processes. Because of his limited visual and auditory memory span he needs a little extra

time for learning. And because his mental processes are somewhat slower than the average, his responses are a little slow in coming but are good when they do come. I do not believe that Edward's defects will prevent his making normal progress in a regular grade provided the teacher understands his limitations. Even should they retard progress somewhat, I believe progress will still be rapid enough to make restoration possible. However, he should be kept under observation for a few years to test this prognosis.

## WILLIAM F.

William was referred to the Clinic in March, 1915 by the school principal because of his backwardness in school. His age was then eleven years and nine months. He was in the upper third grade, having spent two terms in the upper second grade. This was his second term in the lower third grade. He had never changed schools but had had many absences from school because of poor health. His conduct in school was reported to be poor; he was irritable and made little effort. His marks were in general poor but he occasionally did good work.

At this time his health was poor. He had an intestinal hemorrhage and much pain with every movement of the bowels. There were rectal ulcers which had not responded to treatment. He slept poorly and did not feel rested upon awaking in the morning. He slept with his mother and with the windows closed. At the time of the examination he was on a diet prescribed by the hospital. There was no history of any serious illnesses. He had a slightly protuberant abdomen.

William seemed normal about the home although his mother said he was "stupid like." He played with children the same age and got along well with them but he was very sensitive and lost his temper easily. He was active in play.

The birth and babyhood were normal in every way. There was one other child in the family who appeared to be normal. One child had burned to death a year previously. The father was a laborer and the mother eked out the income by cleaning in the school. While the mother was not intelligent she seemed to give William good care and discipline in the home appeared to be adequate. The home, while sparsely furnished, was clean and well cared for. There had been one miscarriage in the family, between William and the next child. There was a history of chorea and heart trouble on the mother's side. Otherwise, the family history was negative.

In the mental examination, while there was considerable retardation in school subjects, no serious mental defects were discovered. There was about two years of mental retardation by the Binet-Simon scale. It was felt that William was a normal boy, rather dull, whose pedagogical retardation was fully accounted for by the medical history. It was recommended that the emphasis be placed in William's case upon medical care even to the extent of removing him from school if necessary.

A second examination in November, 1915 confirmed the first diagnosis and prognosis. By this time William's physical condition had been diagnosed by the hospital as hemophilia and had responded considerably to treatment.

With the improvement in William's physical condition his school work had improved. He had not been promoted in June, 1915 but in the fall had tried an examination and been promoted to the lower fourth grade. He had done well in the lower fourth grade and in February was promoted to the upper fourth grade. He was still backward in arithmetic but was trying hard. In June, 1916 he was promoted to the lower fifth grade.

It was decided to admit William to the 1916 restoration class for observation. He was an attractive boy of thirteen years and one month, preadolescent and very normal in appearance. He was usually good-natured but had occasional sullen spells. He was popular with the other children both with those of the same age and with those younger. He felt some resentment at being a member of the restoration class probably because he was a little older than the other members of the class and felt that he was different from the other children. This feeling of resentment was very much in his favor, we felt. Because of this attitude and also because it seemed desirable for his own development, William was not often required to enter into class activities but was left much to himself. Under this treatment he developed a sense of responsibility and an ability to take care of himself.

Not much attention was given to academic work. His spelling and reading were good fourth grade level. He was interested in what he read and read with good expression. He was able to take a book to his seat and read to himself with evident pleasure in the story. He had a good fund of general information. In number work he was able to perform the fundamental operations although inclined to make careless errors. He needed further drill on problems on his comprehension in problem work was slow and he was slightly deficient in reasoning ability. His handwork was good; he enjoyed it and did it intelligently.

William revealed in the class no specific mental defects except a slight deficiency in range of intelligence and a slowness of mental processes. The observation in the restoration class, then, confirmed the diagnosis of the Clinic. It is probable that he is too far behind his grade now to make up his grade retardation but, as his health is so much improved, can probably make normal progress in the grade he

is now in even under regular grade conditions. He might do a little better under special class conditions and, in addition, would have the greater freedom he needs and the opportunity to do manual work which he so much enjoys.

William, then, is a dull normal boy whose grade retardation is due largely to his former poor physical condition. While he cannot make up his grade retardation he has the ability to take industrial training. So he can be made self-supporting, hence is a restoration case.



## ARCHIBALD M.

Archibald was sent to the Clinic in March, 1915 by a physician in Philadelphia who considered him backward and wished Dr. Witmer's opinion and advice upon the case. Archibald's age was then ten years and ten months. His general health was poor and he was at the time being treated for anemia. He had nocturnal enuresis. There was no history of any serious illness. He was two years accelerated in height and his height and weight did not correlate, there being a discrepancy of one year between them.

Archibald was at this time in the lower third grade. He had not entered school until the age of eight but, except that he had spent two terms in the lower second grade, school progress had been normal. His work in the third grade was generally unsatisfactory although the teacher felt that there had been some improvement since the treatment for anemia had been begun. His conduct in school was excellent.

The family had noted nothing abnormal in Archibald. He played with children of the same age and got along well with them although he allowed them to impose upon him. He liked to help his father who is a carpenter and seemed very capable.

The birth history is negative. Babyhood was normal except that he seemed more quiet than most babies. The family history as reported is negative. The mother's brother did not like school but is now a successful carpenter in Australia. The family came to America from Ireland in 1910. There were four other children in the family who appeared to be normal in every way.

No specific mental defects were discovered in the mental examination although Archibald was two years retarded mentally by the Binet-Simon scale. Arithmetical associations were slow. It was felt that his physical condition might account for his retardation. An open air class was recommended with special attention to proper diet.

There was no open air class near Archibald's home so it was not possible to carry out this recommendation.

Archibald's home is sparsely furnished but clean. His mother seems to give him good care, to feed him wisely and discipline in the home appears to be adequate.

Archibald remained in the lower third grade one year and was promoted to the upper third grade in January, 1916. The teacher said that he was very slow and nervous but that his work was better than it had been in the fall. In June he was promoted to the lower fourth grade.

Archibald was admitted to the 1916 restoration class. His age was then twelve years and two months. He was a quiet, well-behaved boy but without spirit or initiative. He was good-natured and well liked by the other children as he constantly allowed them to impose upon him. He was very timid and never took his own part in any way. He was not active in play but preferred to stand aside and watch the other children play and had to be forced into the games.

His reading was good third grade level. Recognition of words was good and expression fair. He read with some hesitation. His reading was rather mechanical than intelligent and his reproductions meagre and scanty. Spelling was fair.

In number work he could perform the fundamental operations but with many errors. He was unable to apply the operations to problem work. Arithmetical associations he formed slowly. An attempt was made to teach him fractions but his comprehension of any new process is very deficient. His work in arithmetic was mechanical and he depended upon his memory, not upon his intelligence.

He was not interested in the physical exercises, comprehension was slow, energy poor and attention only fair. His rate of movement was very slow. In the swimming he was so timid that it was difficult to get him to even go into the water.

We were quite convinced by the end of the session that Archibald was feeble-minded. His defectiveness is quite general. Mental processes are very slow, comprehension is deficient and his intelligence very defective. His memory is retentive and trainable, probably accounting for his school progress. His attention is sufficient and his movements well controlled and co-ordinated. Imageability appears to be normal. Energy is deficient.

The mental condition is probably complicated by his poor physical condition. His defectiveness may be anemic in origin. There is a possibility of his mental condition being congenital from the report of his being an unusually quiet baby. He can probably be taught to read, write and perform the fundamental operations in arithmetic although one questions the use of an education to him as he is not intelligent enough to use it as a tool. Ultimately institutional care must be considered for him.

## HARRY M.

Harry was first brought to the Clinic in October, 1915 by a social worker because of his pedagogical backwardness and his bad conduct in school and Sunday-school. His age was then six years and one month. Harry had just entered school in the fall and had so far made no progress; every subject was unsatisfactory. His conduct was very poor. The Kindergarten teacher reported that in her room Harry had not seemed dull but had been very troublesome.

Harry's mother had not noticed that he was dull before starting to school. At home he was able to care for himself at the toilet and to dress himself but his mother usually dressed him as he took so long to do it. He played with children of his own age and seemed normal and active in play but did not get along well with other children as he was quarrelsome and inclined to fight.

Harry's birth was normal in every way. His babyhood history is favorable and he was a healthy baby except for intestinal indigestion. His mother reported that his general health was good except that he was very nervous. He often cried out in his sleep. His temper was variable. Adenoids and tonsils were removed in January. He had been circumcised. There was occasional nocturnal enuresis. At the age of one year he had had a bad fall after which he seemed to be unconscious. At the age of three years he fell again. These two falls seem significant as now he drags the left leg slightly. He has had no serious illnesses.

The family history as reported is negative. There have been no miscarriages. There is one other child, a baby of eleven months who appears to be normal. The social worker questions the mother's mentality.

Harry is an attractive child, very normal in appearance. In the examination he was very nervous and excitable and seemed quite undisciplined. The result of the examination was negative, pointing to no one conclusion. His attention and interest were markedly deficient and made it difficult to test other mental traits. Auditory memory span was only three digits. On the Binet-Simon scale there was a mental retardation of about half a year. He was unable to recognize any words in the reader and could not count objects correctly because of his poor attention. He recited several nursery rhymes and his mother reported that he learned these readily.

After the examination Harry was placed in a "special help" class in the public school. In February he was promoted to the upper first grade, in June to the lower second grade.

In August, 1916 Harry was re-examined. His behavior during this examination was especially interesting. He was very excitable and nervous and made many grimaces. He would run about the room, playing in the sand pile or with the toys but would soon lose interest and turn to something else. When asked to put pegs in the pegboard he said he could not do it but was able to do it when it was insisted upon. He seemed inclined to do as he pleased but, when told he must do a thing, was able to do it.

There was some evidence of inco-ordination. His hands trembled as he tried to place blocks in the form-board. His station was normal. His gait was normal in walking but showed a poor balance when he ran about the room. He was not very intelligent in working the tests but used a trial and error method mostly. Imageability seemed somewhat defective. In the Witmer cylinders he seemed to have little judgment of depth. But, in the form-board, imageability seemed sufficient.

Attention was still poor. When asked to watch the point of a pencil his eyes wandered about the room and the effort apparently fatigued him.

He seemed to have little conception of number. Speech was slovenly. He frequently omitted final consonants although able to pronounce them if it was insisted upon.

It was decided to observe Harry for two weeks in the restoration class. To make the observation for this period more valuable he was removed from his home and placed in a small boarding-home. In the boarding-home it was found that Harry was a masturbator. He had to be watched continually and his hands tied at night. He slept well, was obedient and played well with the other children in the home. He dressed himself with the exception of buttoning his shoes. His appetite was poor. The caretaker reported his disposition unsettled.

In the restoration class Harry was inclined to be troublesome. He had poor self-control and no idea of obedience. He seemed to have formed the habit of following his impulses without question. He responded slowly or not at all to signals; commands usually had to be repeated for him. He would run about the room without permission. He frequently said "I can't" when he was able to do. In fact he seemed a quite undisciplined little boy. He was very nervous and excitable,

paid little attention to class lessons and seemed quite unable to concentrate. His effort was poor.

His writing was only fair. He held his pencil in an awkward position and his co-ordination and control of movement were poor. His reading was first grade level. Recognition of words was slow and expression hesitating. The analytic concentration seemed to account for this together with the fact that his attention was easily distracted by other things. His reproduction of what he read was scanty and meagre and only in response to questioning. He was able to use phonics to help him in the recognition of words with some help from the teacher.

His spelling was fair high first grade level. He appeared to associate the sound of the letter with the written letter better than with the spoken letter. In number work he learned to add simple combinations like four plus three, five plus two concretely. He was about ready to begin first grade number work.

Harry's chief defects are his lack of self-control and his poor analytic and persistent concentration of attention. In addition, his auditory memory span is very much limited. Vitality is poor, he lacks energy and is easily fatigued. Control and co-ordination of movement are poor. Imageability seems to be normal, understanding and intelligence are sufficient. Retentiveness seems to be normal but his memory is slightly deficient in trainability owing to his limited memory span.

The problem in Harry's case is whether his defects of attention and self-control are due to his nervous condition and have a physiological cause or whether both the nervous condition and the mental defects are due to the poor discipline in the home. The history of the two falls in infancy together with the possibility of a slight paralysis suggested by the tendency to drag one leg and the imperfect co-ordination and control of movement would indicate a physiological cause. On the other hand his environment has certainly been unfavorable. He seems to be quite undisciplined and has acquired the habit of following his impulses without restraint. Can he inhibit his impulses and control his attention? The only way to decide, it seems to me, is to attempt to train his attention and self-control. The period of observation in the restoration class was too short to reach any conclusion. The emphasis in the treatment of Harry should be upon the discipline. Discipline should be firm but kind. To develop a sense of responsibility he should be given simple, regular tasks. As he fatigues quickly work periods should be short but he should be held rigidly to the accomplishment of the tasks assigned. Such a course of training cannot be undertaken

in his own home as his mother is too unintelligent to direct it. This kind of treatment, since it involves removal from home, would be expensive and I am not at all sure that Harry is worth it. From the scientific side it would be interesting to discover whether restoration is possible in a case of Harry's type. I must leave Harry as a doubtful case.

## ALVAH M.

Alvah first came to the Clinic in April, 1913 when his age was eight years and eleven months. He was sent by the principal of the school because he was not getting along well in school and was reported to be disobedient. He was receiving help at home with his lessons but there was still little improvement in his work.

Alvah was at this time in the lower third grade. He returned to the Clinic for re-examination in May, 1916 when he was twelve years old. In that three-year interval he had made just one-half year's progress in school. The teacher complained that Alvah was very troublesome, had a bad temper, no self-control and no powers of concentration.

Alvah was admitted to the 1916 restoration class. His age was then twelve years and two months. We were immediately impressed with Alvah's complete satisfaction with himself, his swaggering self-conceit. It mattered not whether a task was performed poorly or well, Alvah was quite satisfied with himself. If corrected in any way he became sullen. He was inclined to boss and bully the other children in the class and adopted a very superior and pugnacious attitude toward them but if his superiority were challenged, he immediately became a coward. He displayed a bad temper poorly controlled and had frequent sullen spells with little or no cause. He was somewhat of a hero-worshipper and easily influenced by those whom he admired. His combination of qualities made him particularly troublesome in the school-room.

In appearance, Alvah is average height for his age but is rather thin. His head is so small in circumference as to make it microcephalic. The forehead slopes backward and there is a depression in the head in the right occipito-parietal region. He has the typical adenoid countenance with sloping chin, malocclusion of the teeth and high, arched palate. The teeth are Hutchinsonian, the abdomen infantile and there is a slight left scoliosis.

Alvah's school work in the restoration class was hardly third grade level. He read fairly well in the third reader. Recognition of words was only fair. He was not able to use phonics to any extent but was dependent upon memory. His expression was good, especially considering his only fair recognition of words. His reproduction of what he read was unusually good. Spelling was poor. He was unable to get any help from phonics and his memory was too imperfect for satisfactory spelling. "Anxiously" he spelled "anixanhed," "search" "schard."

In number work he could perform the fundamental operations but with many errors. He would often subtract the upper number from the lower, if the lower number happened to be the larger. He confused multiplication with division. He could do simple, one-step problems but had no success with more complicated problems. He was able to count change correctly although very slowly and somewhat unintelligently. For instance, for twenty-eight cents he gave a dime, three nickels and three pennies.

His physical exercises were very good compared with his other work. He was dependent upon imitation until he had learned a command when he was able to interpret it. He gave good attention, was interested and executed the commands with much energy. He learned to swim during the summer due largely to the entire absence of fear but it was a fool's courage, not intelligent courage. He was very much interested in woodwork but his work was only fair. He was unintelligent in his handwork and unable to persist in any method taught him.

His general health is good except that he is nervous. His birth was instrumental and his head was injured. Possibly the depression noted above was the result of this birth injury. During the first year of his life he was subject to convulsions which have not recurred. He was rather slow in walking; otherwise the babyhood history is normal. The family history as reported is negative.

Alvah's chief defect is his poor intelligence. He makes remarkably good use, however, of his limited intelligence, giving the impression of being more intelligent than he is. He is deficient also in comprehension and his memory is not retentive. His associability is sufficient as indicated by his auditory memory span of seven digits. His attention is also adequate except possibly for a slight deficiency in persistent concentration. His range of interests is slightly limited. There is no deficiency in his control and co-ordination of movement and he has plenty of initiative but his responses are not sufficiently complex for a boy of twelve. His imagination also lacks complexity.

There are two years of mental retardation as measured by the Binet-Simon scale. I should say that the mental retardation is even greater than this and there are in addition the qualitative defects noted above.

Alvah is quite certainly feeble-minded and was so diagnosed by the Clinic after the six weeks of observation in the restoration class. The babyhood and school history and the absence of any illness except the convulsions in infancy would seem to indicate that his condition is congenital. It may have resulted from the birth injury but the fact



that there is no evidence of a gross injury would seem to militate against that theory. Developmental conditions antedating birth may be responsible for his condition and would seem to be indicated by the mother's ill health during pregnancy. The family history as reported is negative.

For the present Alvah would be safe in a special class. Ultimately and, I should say, soon institutional care must be considered for him as his tendency to hero-worship combined with his self-conceit, desire for revenge and pugnaciousness will make him a very dangerous member of Society, especially as a tool for some intelligent criminal.

## CHARLES O.

Charles was first brought to the Clinic in March, 1914 by his parents because of a speech difficulty. His age then was seven years exactly. He had an infantile stammer of such a serious character that it was difficult to understand anything that he said.

Charles had at this time never attended school. He was a healthy child. There was occasional enuresis upon being frightened but no nocturnal enuresis. He had had diphtheria at the age of eighteen months. Birth was normal in every way. He did not begin teething until fourteen months of age and had spasms at the time. He was slow in sitting up but this had not worried the mother as he was a very fat baby. He was past two years old when he began to walk and did not try to talk until past four years of age.

There were two other children in the family, a girl of eight and a baby of two years. Both these children seemed normal in every way. The family history is negative except that the father did not talk plainly until sixteen years of age.

Physically Charles was well-formed and well-nourished. Appearance was normal; he was an attractive looking boy. The palate was arched and contracted and the tonsils slightly hypertrophied. The tongue was long and mobile. No specific mental defects were discovered in the mental examination and it was felt that his mentality was normal. It was recommended that he be given articulation work in the speech clinic.

In the fall of 1914 Charles was sent to school. His progress at first was not satisfactory and he was not promoted in February. The second semester his school work improved considerably and he was promoted in June. Reading was still unsatisfactory. His attendance at school had not been very regular. The boys at school had laughed at Charles because of his speech defect. As a result he had become very sensitive about his speech defect and was inclined to fight the boys who teased him. He seemed quite capable of taking his own part.

Charles' work in the speech clinic at first was very promising as the sounds were clear-cut and he was willing and amiable. But he forgot from lesson to lesson what he had been taught. And his attention wavered after the first few minutes of the lesson. There was no co-operation at home. Charles' progress in the speech clinic during the first year was not satisfactory.

In May Charles' adenoids and tonsils were removed.

It was decided to enter Charles in the 1915 restoration class. He was then eight years old. He was very good-natured and not at all troublesome in the restoration class. In fact he seemed to almost wholly lack initiative. He was quite satisfied to sit and do nothing. He made little effort either in his work or in his speech and seemed to take no interest in academic work. In play he was active and energetic and full of initiative. He was especially fond of wrestling with the other boys and liked to tease but in a good-natured way.

In number work he could add and subtract simple combinations concretely, arriving at the correct results. Spelling was fair low first grade level. Reading was poor first grade level. He seemed to have difficulty in pronouncing the words after hearing them but was helped in pronouncing new words by seeing them written on the board or by watching the lip movements.

Special emphasis in the restoration class was placed upon Charles' speech. He was constantly drilled in articulation, faulty speech was corrected and correct pronunciation insisted upon. There was during the summer a slight improvement in Charles' speech in spite of lack of effort on his part.

We were still doubtful of Charles at the end of summer after six weeks of observation in the restoration class. His satisfaction in doing nothing and his lack of effort and interest seemed to indicate a mental defect. On the other hand there was a possibility that he was only slow. We felt that further observation was necessary in his case.

In the fall of 1915 Charles entered the upper first grade. He was not promoted in February, every subject except writing being unsatisfactory. In June he was promoted to the lower second grade.

Because of the doubt which we felt as to Charles' mental status he was again entered in the restoration class of 1916. His age was then nine years and four months. Charles was more troublesome in the class than he had been the year before. Although his initiative had improved his self-control was poor and he was easily influenced. Moreover, correction did not trouble him sufficiently. He was more interested in his work and made a more satisfactory effort. He was very slow and painstaking and, if hurried, became confused. Attention to class lessons was only fair. He was active in play but babyish if hurt.

His speech was very much improved although he still had difficulty with a few sounds. Reading showed considerable improvement over the previous year. Recognition of words was good and expression fair

in spite of the speech defect. His reading was fair high first grade level. Spelling was good first grade level. He knew the consonant sounds and did not confuse them. Vowels were more difficult for him because of his speech defect. He articulated long "i" as short "a" so spelled "bite" "bat." Number work was fair high first grade level. He seemed to have no difficulty in memorizing simple combinations in addition and subtraction but was very slow in working the examples. His comprehension in learning any new step was very slow. Attention was only fair.

In the physical exercises his work was only fair although he was capable of doing good work when he could be aroused to make the effort. Attention wavered and his response to signals was slow.

I am inclined to be doubtful of Charles as a restoration case. The speech defect itself is a serious symptom, especially as it has responded so slowly to training. He is quite deficient in initiative and lacks self-control. He is easily influenced and not sufficiently troubled by correction. His mental processes are very slow, understanding is slow and his attention, while sufficient in analytic concentration, is not persistent. Effort is poor and he is not interested in school work although normally interested in play. Imageability is normal and his associability only slightly limited. Intelligence seems to be sufficient. Retentiveness is normal and his memory seems to be trainable.

Charles' school progress has not been satisfactory. As a baby he was slow in teething, walking and talking. He has had much attention both in the speech and in the restoration class but has not responded satisfactorily to these opportunities and his improvement has not been sufficient to warrant calling him a restoration case. However, there has been some improvement and I do not like to say that he is not a restoration case. Hence I will leave him as still doubtful.

## RANDOLPH P.

Randolph was first examined at the Clinic in December, 1914 when he was seven years and ten months in age. He was sent by the teacher because he was not getting along well in school. Randolph had entered the first grade in September, 1913 but, after two months, was taken out of school because of illness. He re-entered the first grade in September, 1914. He was not at this time amenable to school discipline. He was not vicious but very mischievous and constantly repeating the same offenses. He talked incessantly and seemed unable to concentrate his attention. His reading was good.

The mother reported that Randolph did not care to play with other children, and got along very poorly with them. This was partly due, she thought, to the fact that the other children laughed at him because of his "baby talk." Randolph seemed normal about the house but very nervous. His mother had noticed the lack of concentration of which the teacher complained. Randolph was beginning to be a little untruthful and was inclined to pick up profanity on the street.

In the mental examination Randolph showed a deficient intelligence and a somewhat limited memory span. He read easily a passage from his school reader, then read it equally well with the page covered. Spelling was poor and he could do no number work. His speech was very defective. He omitted final consonants and made many substitutions. As Randolph gave some evidence in the tests of learning readily it was felt that his poor articulation might account for his difficulty in school and that he would be capable of rapid improvement under training.

Birth and babyhood history were normal and so strengthened this opinion.

In accordance with the recommendation of the Clinic Randolph was given an examination with a view to speech training. In this examination it was felt that his speech difficulty was probably the result of a subnormal mentality but, as his physical condition was very poor, it was possible that both the defective speech and the backwardness might be due to his general physical condition.

So in September, 1915 Randolph was taken to a hospital clinic and a general physical examination made. He was sleeping well but ate rapidly, not masticating his food properly. He had had diphtheria at four years and pneumonia at seven years. In the physical examination he was found to be of a neurotic type. His general physical con-

dition was poor and a special diet and course of treatment were prescribed for him. He had a slight lateral scoliosis and for this physical exercises were prescribed under the direction of an orthopedic surgeon. Circumcision was found to be necessary and the operation was performed.

In the meantime the social worker had investigated the home conditions. She found the family consisting of Randolph, his father and mother and a baby of one year living in two small rooms. The rooms were clean and neat but very crowded. The baby had a crib but Randolph slept with his father and mother. The mother was very nervous, in fact had symptoms of exophthalmic goiter. Randolph irritated her and she frequently lost patience with him. Randolph was subject to fits of temper. The father was a steady drinker and gave little money toward the support of the family. He was often impatient with Randolph.

A school report was obtained in January, 1916. Randolph was now in the upper first grade and his work was very much improved, so much so that he was again promoted in February to the lower second grade. Arithmetic was his only unsatisfactory subject. His conduct had not improved so much but he was less nervous. Randolph was again promoted in June, 1916.

The school report of Randolph was so favorable that it was decided to enter him in the 1916 restoration class. The family had moved into larger quarters and Randolph had a room to himself. In May it was found that Randolph's nose and throat were in a bad condition and his tonsils and adenoids were removed before the opening of the summer session.

Randolph gave one the impression in the class of general weakness, mental and physical. He was tall for his age of nine years and four months but very thin and pale, partly as a result of his operation. Both jaws were contracted and the teeth irregular although in good condition. He did not get along well with the other children and did not care to play with them. He was unpopular with them as he would whine if hurt and was inclined to "tattle" on them. He had almost no initiative and his extreme timidity often made him untruthful. He constantly repeated the same offenses.

He could do practically no arithmetic except read and write a few numbers. He could not even add and subtract concretely with sticks or blocks because, while he was able to comprehend what to do, he was unable to count the objects correctly.

Reading, although better than the number work, was poor second grade level. Recognition of words was fair and expression fair although slow and hesitating. Spelling was very poor. He was not intelligent enough to use phonics and his retentiveness of letter combinations was poor.

His physical exercises were very poor. He was entirely dependent upon imitation and was too slow to imitate well. Consequently he became confused if the commands were at all complicated. His attention was good, comprehension poor and energy poor.

Randolph is certainly mentally defective. His defectiveness is quite general. He has defects of vitality, attention, imagination and memory. He lacks initiative and his imagination is not complex. His intelligence is very deficient and his memory not trainable. Associability as shown by the auditory memory span seems to be normal.

It is probable that Randolph's condition is congenital in spite of the favorable birth and babyhood history. The mother has had six pregnancies. The first baby died at the age of three days of hypostatic pneumonia. The second pregnancy resulted in an abortion at the sixth week. The third was a seven months baby and was malformed; there was no brain development. Randolph was the next child. The fifth child died at the age of two years of pneumonia. The sixth child is a baby now two years old and apparently normal. The family history as reported is negative except that Randolph's maternal grandmother died of paresis reported to have been contracted after the birth of her children.

Ultimately institutional care must be considered for Randolph.

## WALTER R.

Walter was sent to the Clinic in March, 1916 by a medical clinic in Philadelphia, because he was reported by his mother to be incorrigible at home and in school. His age was then seven years and three months. His mother reported that he played with children of the same age but allowed them to impose upon him. At school he was often beaten by the colored boys.

Walter had entered the first grade in the fall and was now spending his second term in the lower first grade. He had spent eight terms in the Kindergarten, entering at the age of three. Attendance at school had been regular. His mother reported that his conduct in school was poor.

Walter was in poor physical condition. He had a chronic running ear which had been treated at the hospital. Arrangements had been made to remove his tonsils and adenoids. He had just recovered from a severe attack of acute bronchitis. There was occasional nocturnal enuresis. There was no history of any serious illnesses.

The birth history is negative. As a baby he was delicate and troublesome and seemed to the mother duller than the other children in the family. He did not walk until three years of age. He did not talk until four years of age and did not talk plainly at the time of the examination.

There were two other children in the family, a boy of nine years who was in the first grade in school and a girl of three years who, from the mother's report, appeared to be normal. Two children were dead. The family history as reported is negative.

The father had died of blood poisoning and the mother supported the family by washing. The financial level of the family was low and they had required some outside assistance.

Walter was slightly under-height and under-weight for his age. In his appearance there was a decided suggestion of Mongolianism. There was the characteristic lack of development of the head in the occipital region, the tongue was fissured, the nose depressed, and the hands Mongoloid.

The result of the mental examination was doubtful and the diagnosis deferred. There was about a year's mental retardation measured by the Binet-Simon scale. He was not intelligent in solving the tests but used largely a trial and error method. He worked very persistently



but showed some evidence of fatigue. Imageability seemed defective as also did his comprehension. His memory span was only four digits.

It was decided to observe Walter in the 1916 restoration class. The results of the mental examination had not been conclusive. While he had shown evidence of specific mental defects his mental level was certainly not as low as his appearance would suggest. The restoration class would test his capacity to learn. In order to have him in the best possible physical condition the hospital sent Walter to the country for six weeks. When he returned from the country he had gained four pounds and seemed to be in splendid physical condition.

At the time Walter entered the restoration class his age was seven years and seven months. He was very good-natured and easily imposed upon and did not resent being bossed by the other children. He showed almost no initiative.

His writing at first was very poor because of his poor muscular co-ordination. He was given Montessori insets to outline and fill in. This improved his co-ordination so that he was able to copy quite well by the end of the session.

He made almost no progress in reading during the session. An attempt was made to teach him to recognize a few simple words by having him copy them on the board. He would remember the word for a few minutes but, after a few hours or by the next day, had forgotten it entirely. His understanding was very defective. An attempt was made to teach him to discriminate words ending in i-t but the attempt was quite unsuccessful. His attention and interest were sufficient for very short periods only.

In number work he was taught to count objects up to twenty-six and to recognize and read numbers through five but he was not able to add even simple combinations concretely.

In the physical exercises he was entirely dependent upon imitation. His effort was good, his attention persistent and he did not seem to fatigue easily but his understanding and his analytic concentration of attention were so poor that he could execute only the very simple movements.

We felt that Walter was not an educable case. His defectiveness was quite general with specific mental defects in analytic concentration of attention, retentiveness, initiative and intelligence. His condition probably dates from birth as the late walking and talking would seem to indicate. There may be an hereditary defect as one other child is seriously retarded pedagogically and the intelligence of the mother is not high. Walter has since been diagnosed by the Clinic as feeble-minded.

## HARRY S.

Harry was first examined at the Clinic in April, 1916 when his age was seven years and nine months. He was sent by the principal of the school because of his inability to get along in school. The teacher reported him very nervous and excitable and incapable of giving attention. Harry had entered the first grade at the age of six years but was sent home because of his nervousness. When he re-entered school he was placed in a special class where he had been up to the time of the examination. German is spoken in the home and Harry had some difficulty in learning English. His conduct was fair but he was very restless. School attendance had been rather irregular because of frequent illnesses. Harry had not learned to read while in the special class. He had memorized the stories in the reader but could not recognize the separate words, nor spell out the letters. He showed no interest in the activities of the class. He would march with the class for a few steps, then break step. He would sing with them for a few notes, then cover his ears. The class was composed of quite low-grade children.

Harry was tall for his age and very thin. Measurement proved him to be one year accelerated in height and one year retarded in weight so there was a discrepancy of two years between his height and weight. His nervousness was extreme. He was unable to keep still for any length of time. His voice was high-pitched and, when excited, his whole body became tense. He would cringe from a harsh voice as from a blow. In appearance he was not attractive. His head was small, bullet-shaped and slightly malformed. His face looked undeveloped.

Harry had always been nervous. He caught cold easily and had twice had bronchial pneumonia. At one time he had dragged one leg. He had been a masturbator but the masturbation had discontinued at the time of the examination. There was a history of enuresis. The father reported that his general health was somewhat improved, that he ate better, slept better and was not as pale and thin as formerly.

Harry's personal history is interesting. His father is a talented musician and comes of good German stock. A brother of the father is a professor in Oxford University, and another brother is a successful merchant. The mother is dead but from the reports of her and from her picture one would judge her to have been a refined and sensitive woman of good stock, German like her husband. She and her husband

were first cousins. She was forty years old when Harry was born. She had been married before and had had no children by her first husband but had had one stillbirth. There was one child besides Harry by her second marriage. This child suffered from congenital cyanosis at birth, was always sickly and died at the age of a year and a half. This baby required so much care that the mother was not at all well before Harry's birth.

Harry's birth was normal in every way except that he was a very small baby weighing at birth only three and a half pounds. He was late in teething and talked before he walked, talking at one year and walking at eighteen months. He was a nervous, irritable baby but otherwise, seemed normal and like other children.

When Harry was six years old his mother became an invalid and remained an invalid until her death one year later. In her invalidism she was very nervous and Harry especially seemed to make her more nervous. As a result he was allowed to do anything he pleased so long as he did not annoy his mother. Discipline was almost wholly neglected for the entire year of his mother's invalidism. Moreover it is probable that his mother made him nervous as he did her.

After his mother's death he was passed around among the relatives. As he was by this time quite undisciplined none of the relatives were able to endure him and, after they had all tried and failed, he was returned to his father. The father next tried a series of housekeepers but, after a short trial, each housekeeper left in disgust. Finally the father married one of his housekeepers and she is at present Harry's stepmother. She is of a much lower class socially than Harry's father, is cross and disagreeable and has a harsh voice. She does not understand Harry and her discipline is neither wise nor intelligent. The house, while clean, is untidy and cluttered. She talks about Harry before him and on one occasion read to him an account of a man "just like him" whose "having his own way" led to his murdering another man. She has two children of her own, a girl of thirteen and one of eleven, who "boss" Harry and understand him no better than their mother does. Harry feels the difference between himself and his stepmother and resents her authority, maintaining that he is his own boss.

The parents report that Harry is very easily excited at home and that his attention is flighty. He has a very bad temper. When punished he is resentful and angry and punishment never seems to do him any good.

In the mental examination his persistent concentration of attention was very poor. His comprehension and intelligence seemed somewhat limited in range but on the whole sufficient. His imageability as shown by the design blocks was unusually good. He could repeat quite complicated designs from memory after a short exposure using an intelligent method.

At the suggestion of the Clinic Harry was entered in the Kindergarten of a public school. The teacher became very much interested in him and studied him individually. He did well in regular Kindergarten work, was in the highest of the three sections. He was quick with blocks but did better by imitation than by oral direction. He was slow in academic work, seemed unable to concentrate his attention upon it. He was obedient although the teacher often had to speak twice to him. His attention was poor but his nervousness seemed to improve. He fatigued very quickly. In June he was promoted to the first grade although the Kindergarten teacher was doubtful of his ability to comprehend the work.

Harry was admitted to the restoration class of 1916. His age was then eight years and one month. He was present only three weeks. In this time not very much was accomplished with academic work. This was due to his poor attention, lack of interest and slow comprehension. His retentiveness seemed fair. In the physical exercises he was dependent almost wholly upon imitation and then could only imitate the simplest movements. His attention was very poor. He had little energy, was easily fatigued and made little effort to do the exercises. He was not at all troubled because he was unable to do them. His conduct was poor. He was not amenable to school conditions even under special class conditions. His response to commands was very slow. He gave one the impression of being wholly undisciplined and seemed to lack the ability to control either his nervousness or his behavior but was a slave to every impulse. His attitude toward the other children was very childish.

It was felt that the chief obstacle to normal progress in Harry was his lack of self-control and deficient attention. An attempt was made to train his self-control and attention by careful discipline. This meant painstaking and untiring effort on the part of the teacher. The improvement in Harry was very slight. He learned to control himself for short periods. His power of self-control varied from day to day and on the days when his control was poorest, inquiry usually revealed some disturbance at home; he had been punished or been

unduly hurried at breakfast. Unfortunately the three weeks were too short to really make a satisfactory attempt to develop his self-control.

Harry's imageability seemed to be good but his imagination was not sufficiently complex. His memory appeared to be retentive and trainable. Memory span was good. Comprehension was somewhat slow and limited in range. His chief defects, however, were in attention, self-control and lack of vitality.

The result of the summer's observation was inconclusive in Harry's case. He was present only three weeks and the influence of the home counteracted any favorable effect the restoration class might have had. Practically nothing was accomplished in academic work during the three weeks partly because all effort was concentrated upon training Harry in self-control. The problem seemed to be whether Harry's attention and self-control could be trained. There was very little improvement in either during the observation period. Of course one must consider the shortness of the time and the counter-effect of the home. That his nervousness and lack of self-control were related seemed probable. Was the deficient self-control due to the nervousness and would it improve, should the nervous condition improve? Was the nervousness the result of the poor discipline or were both the nervousness and the lack of self-control symptoms of mental deficiency? These were some of the problems. There was considerable evidence that his nervous condition was congenital. His appearance suggested a uterine arrest of development. The history of one stillbirth and one case of congenital cyanosis in the family pointed to unfavorable developmental conditions. Any defect in the family would be accentuated by the fact that the father and mother were related.

On the other hand, Harry had been submitted to the wrong kind of discipline for the last two years. The kind of environment in which he had lived was particularly unfavorable for a nervous child. He seemed quite undisciplined and his defects of self-control were so serious that it was possible that, even were they due to environmental conditions, they would not respond to a change of environment. So many problems arose in Harry's case that I was unable to come to a definite conclusion, although I was inclined to be very doubtful of his being a restoration case.

In the fall of 1916 a further attempt was made to teach Harry, clinic teachers being sent out from the Psychological Clinic for this purpose. The emphasis was placed upon academic subjects. Harry's response to the teaching was so unfavorable that it was decided that he was feeble-minded, not educable and certainly not a restoration case.

## SADIE S.

Sadie was first brought to the Clinic in February, 1916 by a charity organization in Philadelphia because of her doubtful mentality and her peculiar behavior. Her age was then seven years and one month. Sadie had been removed from her parents by Court order because of poor living conditions and the inability of the father to support the family. She was placed by the Court in the care of the charity organization which had brought her to the Clinic. This charity organization placed Sadie in a boarding home but the caretaker of the boarding-home was unable to control her. She was placed in one home after another where the same difficulty was encountered. Because of reported masturbation she was placed under observation in a hospital for three weeks. The hospital reported that Sadie would jump out of bed and slap the other patients with no apparent provocation.

Sadie entered the first grade in the fall of 1915 and spent two terms in the lower first grade. She accomplished very little in school during this first year. The second year of school she accomplished more and, at the time of the examination, was in the upper first grade. The teacher reported her memory poor.

There was practically nothing known of Sadie's family except that her father was inefficient and shiftless. The family is Russian Jewish. There are four other children in the family varying in age from four to ten years. Nothing is known of them. There is no information concerning Sadie's birth and babyhood.

Physically Sadie is unusually well-developed. Her height and weight are that of a girl of nine or ten. This caused us to doubt the correctness of her age but her teeth are those of a seven-year-old girl. Her general health is good and the observation at the hospital proved the masturbation to be less than reported. Sadie had had a double mastoid operation. She had the enquiring, rather immobile expression of a partially deaf child together with the tendency to day-dream. Examination proved that her hearing had been reduced to about one-fifth normal. Strangely her deafness had not been discovered either by the school or by the caretakers.

In the mental examination we found that Sadie was not proficient in either reading or number work. Her recognition of words was poor, her articulation fair but the tone monotonous. Judging from her articulation her hearing had probably been normal or nearly so from two

to four years of age. She had little conception of number beyond three. Because of her deafness she had probably profited little by her school instruction.

There was a year's mental retardation by the Binet-Simon scale. Her auditory memory span was limited to four digits. Observation seemed deficient and she appeared to lack initiative. Attention seemed sufficient in analytic and persistent concentration but not sufficiently distributed nor alert. There was evidence of a deficiency in imageability. Her intelligence seemed normal.

It was decided that Sadie's deafness probably accounted for her inability to get along in school. She had revealed no very serious mental defects in the examination and the discipline in the boarding home in which Sadie had been placed seemed to have been unintelligent. It was felt, therefore, that Sadie was normal although retarded and probably slow because of her deafness and possibly inferior race extraction. It was recommended that she be placed with some woman intelligent enough to understand the situation and well-enough disposed to meet her on her present plane of development. It was also decided to observe Sadie in the 1916 restoration class.

In June, Sadie was promoted to the lower second grade. The teacher reported that her work was improving. However, she did not seem to be able to concentrate her attention upon anything.

When Sadie entered the restoration class her age was seven years and five months. She was not an especially troublesome child in the class although she would often leave her seat without permission and come up to the teacher to ask a question. This we felt to be accounted for by her deafness. She was an active child with much initiative and, had she not been kept busy, would probably have been more troublesome. It was more difficult to keep her busy than it was to keep a hearing child busy.

Her reading was about upper first grade level. Her recognition of words was only fair and expression poor. Comprehension seemed slow but this may have been due to her defective hearing. Her retentiveness seemed deficient. In spelling Sadie learned new words readily but did not seem to retain them. Because of her deafness she confused certain sounds and this made spelling more difficult for her. "Bird" she spelled "birk," confusing the "d" and "k." She was about ready for upper first grade spelling.



She was just about ready to begin number work. She could read and write numbers through nine. An attempt was made to teach her addition and subtraction concretely with the peg-board but her comprehension was very slow, she was easily confused and could learn but one step at a time. Her understanding seemed deficient.

Writing was very good.

In the physical exercises she was entirely dependent upon imitation as she could not hear the commands. Her comprehension here was slow and her attention not well distributed. Rhythm and energy were good.

Her speech was defective because of her deafness. She omitted final consonants and confused certain sounds as "d" and "t," "p" and "b," "b" and "f".

Sadie revealed, then, several mental defects as a result of the observation of her during the summer. The most serious of these was her defective retentiveness. But, as Sadie was a member of the restoration class only three weeks and her attendance was irregular, we felt that further observation was desirable to confirm this. Understanding seemed deficient but may have been merely slow as a result of her deafness. Auditory memory span was slightly limited. Analytic and persistent concentration of attention were sufficient but her attention was not sufficiently distributed nor alert. Imageability seemed sufficient and initiative was good. Her intelligence was only fair. Energy was good. Her responses and her imagination were not sufficiently complex.

Many factors enter into Sadie's case. She is so handicapped by her deafness that it is impossible for her to obtain an education under regular grade conditions. Moreover, the environment has been unfavorable. The conditions in the home were so poor that it was necessary to remove her from her home. Since then it has been impossible to find a caretaker able to control her. Of course the difficulty which caretakers have had in controlling her indicates a deficiency in conformity on Sadie's part but one cannot be sure that the caretakers have been intelligent and wise in their discipline, as her deafness alone has made discipline difficult. Moreover, Sadie had not been a difficult child to handle in the restoration class during the short time she had been a member of the class. Certainly the constant shifting from place to place making necessary on Sadie's part constant adjustments to new conditions had been most unfavorable. So, in spite of the serious mental defects which Sadie had displayed making us doubtful of her

restoration, we felt it to be unfair to make a final diagnosis without further observation, observation under more favorable environmental and educational conditions.

In the fall of 1916 Sadie was placed in a small private school where instruction was individual and the discipline firm, sympathetic and intelligent. Her progress has been carefully watched. She failed to make satisfactory progress under these conditions and so has been diagnosed by the Clinic as feeble-minded.

## WILLIAM G.

William first came to the Clinic in January, 1915. His mother brought him because of a serious speech defect. William's age was then seven years and ten months. His mother reported that he played with children of the same age but got along poorly with them as he was inclined to be "bossy." He seemed to her quite normal about the house. He was especially interested in manual work and liked to make things out of wood.

William was in the first grade of parochial school. He had spent two years in the first grade entering at the age of six. Attendance had been quite irregular because of frequent illnesses. The quality of his work was poor except in drawing, handwork and music. He seemed especially fond of music. He was reported to be inattentive in school, very restless and mischievous.

His health was reported to be fair. He had been under treatment for eighteen months for indigestion and nervousness but his condition had very much improved. His appetite was good, the bowels regular but he was still restless in his sleep. The tonsils were hypertrophied. He formerly had had enuresis but this had disappeared since he had been circumcised four years previously. There was no history of any serious illness.

Birth history is negative. He walked and talked at the usual time. His first tooth he cut at the age of twelve months but after that his teeth came very rapidly. The stammering was not noticed until he was three years of age. He was a healthy baby and seemed in every way like other children.

There were three other children in the family, all girls, one of six, one two and a baby of six weeks. These children appeared to be normal. There had been two miscarriages, one before William's birth and one since. The family history as reported is negative, except that the paternal grandparent had a mild stammer.

The house in which the family lived was large with good air and ventilation. It was sparsely furnished but clean. The father worked nights in an automobile garage and all four children slept in the same room with the mother.

In June, 1915 William was not promoted and it was decided to take him into the 1915 restoration class for observation.

He was only present for one week in the 1915 restoration class. But he made so lasting an impression that the next year the teacher insisted

that he had been present the whole six weeks. He was obedient only when watched; he always seemed to do what should not be done. He acted wholly upon impulse apparently without considering the results of his acts. He was very unpopular with the other children. Even the mischievous boys disliked him, one of them describing him as "the freshest kid of his size I ever seen." He seemed quite undisciplined and none of the methods tried during his attendance upon the restoration class seemed effective. Nothing seemed to interest him.

The time was too short to do much with academic work but the quality of his school work seemed very poor for first grade.

William's speech had improved under speech training. There had been considerable improvement in articulation so that his speech was more distinct. The stammer was as bad as ever.

In February, 1916 William was promoted to the second grade, and in June to the upper second grade. He was reported as doing fairly well in school except for his speech.

William was entered in the 1916 restoration class. His age was then eight years and eight months. Although there was some improvement in his conduct he was still very troublesome. He was meddlesome and sneaky, seemed quite unable to take care of himself and made little effort at self-control. He seemed very nervous and excitable and quite unable to stand or sit still. He got along poorly with the other children, would annoy them and, if they struck him, would cry and run to tell the teacher.

Reading was very poor. Recognition of words was only fair and he was unable to use phonics to help him in the recognition of new words. Expression was hesitating and halting, due partly to his speech defect. Spelling was also poor. His retention of letter combinations seemed poor.

In number work he could do addition with carrying, subtraction with borrowing and short division but had to resort to devices like marks as the retention of number combinations was as poor as his retention of letter combinations. He was able to do simple problems if presented orally but had more difficulty with written problems because of his reading difficulty. He measured the size of a bench he wished to make and figured its cost at so much a foot.

In the physical exercises William was able to interpret quite complicated commands, seemed interested in the exercises and his sense of rhythm was good. But his movements were not very forceful and his attention to the commands only fair.

William's chief mental defects are his defective persistent concentration of attention and poor retentiveness. His retentiveness seems to be poor both for letter and number combinations. His attention is not controlled although occasionally, when interested, his attention is sufficiently persistent. Intelligence and understanding seem to be normal, and he has plenty of initiative.

The lack of self-control is serious. The lack of self-control may be partially due to his nervous condition. Another factor in the deficient conformity and possibly also in the nervous condition is the inadequate discipline in the home. The mother has little control over William. She is so worn out with child-bearing and the care of the children that she is nervous and irritable, besides being inefficient. William particularly needs firm discipline to develop in him habits of obedience and self-restraint. I see little hope of any improvement in William's conformity under present conditions as his mother is quite unable to cope with him. An aunt with whom he occasionally stays has more control over him but were he to stay with her permanently, I would be doubtful of the outcome as I doubt whether William has the capacity for self-control. Moreover, William's defect of retentiveness is so serious as to make normal progress impossible. William, therefore, is not a restoration case.

## DISCUSSION OF CASES

My final classification of these twenty-eight cases is as follows:

	1916	1915	Fannie B.	Grouped
Restoration cases	2	2		4
Doubtful cases	3	2		4*
Not restoration cases	10	11	1	20*
	—	—	—	—
Total	15	15*	1	28

\*Three of the 1915 class were also members of the 1916 class.

Not much can be said of these twenty-eight cases as a group. They are distinctly individuals, differing each from the other. But a few observations seem warranted by these few cases. The observations must be understood to be made of these twenty-eight cases only, and not necessarily to be of any wider significance.

With these high-grade defective children, border-line cases their defects do not show until they are of school age. There are few stigmata. Sixteen of the twenty-eight cases have no stigmata. Six of the remaining twelve have only a few stigmata, probably no more than many normal persons. The general appearance of the child was favorable in twenty-one of the twenty-eight cases. In no case was the appearance very unfavorable.

The family history as reported was favorable in twenty of the twenty-eight cases. In four more cases there was no information regarding the family history. In three more cases the family history was only slightly unfavorable leaving only two cases with a distinctly unfavorable family history, I mean by this a neuropathic family history. In several of the cases there was a history of tuberculosis in the family or of heart trouble. These cases I have not included as of unfavorable family history. In six of the twenty-eight cases there were a number of stillbirths, miscarriages or infant deaths in the immediate family. It is difficult to get reliable family histories as most persons are very reticent concerning these points. One cannot regard these family histories, therefore, as of much significance.

The birth history is favorable in nineteen of the twenty-eight cases. In four more cases there is no information as to the birth history. In one case the birth was only slightly unfavorable leaving only four cases of unfavorable birth history. These four cases include congenital

cyanosis (two cases), long and hard labor and instrumental birth with injury to the child.

The babyhood history is favorable in seventeen of the twenty-eight cases. There was no information concerning the babyhood in four cases, leaving seven cases with an unfavorable babyhood history. By unfavorable babyhood I mean late teething, walking and talking.

I was impressed by the fact that in very few of the cases, specifically in only three, was there any physiological retardation as measured by height. In twelve of the cases there was neither retardation nor acceleration. In thirteen of the cases or almost half there was acceleration. I do not know how to interpret this. It certainly indicates that the growth processes have not been normal. In a few of these thirteen cases both height and weight have been accelerated but more often the height alone, resulting in a discrepancy between height and weight. This is especially true of the nervous cases.

Nervousness is very frequent in these twenty-eight cases. Eight are very nervous, five slightly so. There are neurological signs such as a paralysis in three of the cases. The nervousness seems significant as it is a symptom other than the mental deficiency of a defective nervous system. One of the cases with neurological symptoms is Gabriel whom I have classified as a restoration case. In his case the neurological symptoms are the result of polio-myelitis, hence indicate a nervous system that has been injured through disease, not one that is innately defective.

In all of the cases there is some pedagogical retardation varying in amount from one-half year to four years. In most of the cases it was this pedagogical retardation that first brought the child to the Clinic. But, while the pedagogical retardation is always significant, indicating as it does the child's inability to get along in his normal environment, his inability to progress with children of his own age, it alone is likely to prove misleading. A few cases will make this clear. Randolph P., one of the lowest-grade children in the group, has failed of promotion only once. At the age of nine years and four months he is in the upper second grade, revealing considerable pedagogical retardation but he entered school a year late because of illness and his health has been so poor that school attendance has been irregular.

Henry B. has only failed of promotion twice and he again is a low-grade case. At the age of eight years and eleven months he is in the upper second grade. Moreover, his attendance has been very irregular

and he has frequently changed schools. Upon the advice of the hospital he has even been taken out of school because of his nervous condition.

Archibald M. is another low-grade case compared with the group. Yet, although he is twelve years old, he has only failed of promotion twice. And again, his health has been poor and he has been under treatment at the hospital for anemia. Certainly in none of these cases can the pedagogical retardation taken by itself be regarded as serious.

Compare Henry B. and Edward D. They are within one month of the same age and are in the same grade in school. Edward I have classified as a restoration case, Henry as not restorable. Yet Henry spent one year in the first grade, while Edward spent two years in the first grade. While of course I may be mistaken in regarding Edward as a restoration case, at least he is much more nearly normal than Henry while from the pedagogical history one would expect the exact reverse.

Often the school grading is not an indication of the child's real educational level. Harry A. was ranked by the school as upper second grade level yet his work is only first grade level. Charles C.'s school grading was upper third, yet most of his work was not higher than second or low third grade level. In scarcely any case was the school grading found to be correct. Yet the teacher of the restoration class who did the grading was trained in the Philadelphia schools and taught there for many years, so was quite familiar with the course of study of the different grades.

Compare Edward D. and Randolph P. Both are graded by the schools as upper second grade. Yet Randolph can do no arithmetic except read and write a few numbers. He cannot even add concretely with blocks or sticks. Edward can add with carrying, subtract with borrowing and can do short division and some simple multiplication. Hearing them read one might think they were of the same level but Edward can intelligently reproduce what he has read while Randolph's reproductions are scanty and meagre.

Randolph is reported by the school to be good in reading. He has mastered the mechanics of reading of the second grade level but his reading is like a parrot's talking, a mere trick. One can tell by his reproductions that reading can never be for him a tool which he can use. He can never be taught to read in the real sense of the word.

I was often misled in my selection of children by the school report of the child's progress. Take the case of Archibald M. After the hospital began treating him for anemia the school reported a very favorable improvement in his work. It looked like a clear case of



retardation due to physical condition. Yet, after one week's observation in the restoration class, we were sure that Archibald was feeble-minded. Randolph P. was a similar case. The report of the examiner in the speech clinic was very unfavorable. But, after Randolph's treatments at the hospital began, there was so favorable an improvement in his school work that I decided to take him into the restoration class. Francis D. is another case. When he first came to the Clinic he was, from the school report, accomplishing nothing in school. But when the Clinic recommended special class for him the principal was reluctant to send him because his school work had improved so much since the examination at the Clinic. Because of this reported improvement I took him into the restoration class and he proved to be a low-grade case.

So while inability to get along in school is an important factor, worthy of much consideration it needs to be interpreted. When a child's pedagogical retardation amounts to several years, he is usually a hopeless case for restoration. But even in cases where the pedagogical retardation is slight, the case may be hopeless also. Two of the cases which I have classified as not restorable are retarded pedagogically only one-half year. Of course they are the younger children of the group varying in age from seven to nine years. In interpreting the pedagogical retardation one must consider whether the school grade represents the child's real educational level. The tendency is to push the backward child on because of his over-size, crowded conditions of the school, etc. One must consider why the child is retarded, such factors as late entrance, irregular attendance, the kind of teaching the child has had etc.

The home environment of these cases is interesting. In nine of the twenty-eight cases the financial level of the family was considerably below the average, in seven other cases somewhat below the average. Yet care of the children was adequate in nineteen of the cases and only very inadequate in five cases. By adequate care I mean that the child had enough to eat and was kept clean and comfortable. In these five cases the child had to be removed from the home because of inadequate care.

But discipline in the home I have classified as inadequate in fourteen of the cases, as only fair in six more. And it is not always in the homes of low financial level where the discipline is poor. Francis D.'s mother is supporting herself and ten children on an income of less than seventy dollars a month, yet care is adequate and the children well-disciplined. In the case of Jennie J., on the other hand, while the finan-

cial level of the family is very high and the care excellent discipline is very unfavorable.

Of course these children are as a whole very difficult to handle. Discipline that might be adequate for the average child is inadequate for these children. Many of them are nervous; they are lacking in self-control. A deficiency in conformity is often a symptom of their defectiveness.

It is probable that it is to the child slightly below par mentally that proper discipline and also physical care are of the greatest importance. The average or bright child will probably make progress in spite of poor discipline or even in spite of poor health if the discipline and the poor health are not of too serious a nature. The child very much below par mentally will be retarded with the best of physical care and discipline. But the child slightly backward most needs good care and adequate discipline.

The intricacy of the causes of the retardation is very evident in these cases. Probably in all of the twenty-eight cases the mental level is somewhat below the average, very much below the average in some of the cases. This subnormal mentality is due to poor heredity, developmental conditions, disease, neglect. Combined with the subnormal mentality there is often a poor physical condition, nervousness, inadequate discipline and poor care or neglect. The causes of retardation are so intricate, the combination of causes differs so much in the different cases that it is impossible to generalize and of little value were it possible.

In nine of the cases the speech was defective. In fact a speech defect if at all pronounced may be regarded as a serious symptom. Speech training is not effective for these cases. In several of the cases there has been speech training extending over a number of years. But, while the cases apparently respond to training, learn to articulate well in the speech clinic these backward cases do not carry the training over into their conversation or reading but remain practically unhelped by the training. Henry B. was a good illustration of this. He was given speech training during the summer. The teacher of the restoration class complained to the speech teacher of Henry's defective speech and was told that Henry articulated well in the speech lesson. But his daily speech improved not at all as a result of the training.

Three of the twenty-eight cases are partially deaf. In the case of Bertha B. the reduction in hearing is only slight and only temporary and has probably interfered not at all with school progress. In the

cases of Fannie B. and Sadie S. the deafness was a real factor and made the diagnosis especially difficult, making necessary, especially in the case of Fannie, observation over a long period of time.

## CONCLUSION

Of the twenty-eight cases studied in this thesis, then, twenty cannot be restored, four are doubtful and four only can be restored. These results seem very discouraging. And yet, at the time these children were selected for study, the prognosis in each case seemed favorable. But although they were chosen only after a clinical examination and after careful study, the observation in the restoration class has not supported this prognosis in most cases. The prognosis was too favorable and restoration is not possible for most of them.

Retardation then is a far more serious problem than we have as yet realized. We have been too hopeful. The children we have been calling restoration cases are not restoration cases at all. We have been striking too low and attempting to restore those for whom restoration is impossible. When institutions for the feeble-minded were first established the aim was to restore the inmates, to make it possible by special educational methods for the inmates to be prepared to live a normal life in society. This attempt has been given up, and we realize now that these cases are custodial cases and cannot be restored by any kind of educational treatment. Special classes in the public schools were started with a similar aim. An attempt to teach these special class children has convinced us that restoration for these cases also is impossible. But we still believe that in schools where the feeble-minded have been weeded out and placed in special classes, that for the pedagogically retarded pupils left in the regular grades restoration is possible. Public school systems are just beginning to become interested in these so-called backward cases. One is quite safe in saying, I think, that in the near future classes for these backward children are going to be organized, organized for the same purpose which actuated the establishment of special classes in the beginning, the restoration of the children. And that the outcome of this new attempt at restoration will be similar to the outcome of the special class experiment, I feel certain.

In Detroit last fall a few teachers were assigned to a few schools in the city to coach these so-called backward pupils and bring them up to grade. I had the privilege of examining some of these children in one of the schools. The school already had a special class so one would be justified in assuming that the feeble-minded children had already been pretty well weeded out of that school. And yet, in a brief, superficial

examination, of a few of these children, I was able to diagnose over half of them as either feeble-minded or border-line. I have no doubt that the result of attempting to restore the other half of these children to grade will prove that for many of them also restoration is impossible.

We have as yet then scarcely touched upon the problem of restoration. For further study of the problem a careful and prolonged study of possible restoration cases is necessary. The amount of pedagogical retardation alone is not a sufficient basis for the selection of these cases. These few cases tend to show that the correlation between a child's school progress and his innate mental ability is not always close. While the child's inability to make normal progress in school is always significant, the pedagogical retardation must be interpreted. We must discover what the obstacle to normal progress has been.

Nor is a clinical examination alone sufficient to diagnose these cases even when this clinical examination includes family history, medical history, physical examination, etc. These are the difficult cases. It is necessary in addition to the clinical examination to attempt their restoration, to try a course of treatment upon the child, either educational or medical or both, and note its effect. We must try a practical test, an attempt to teach. The observation of the regular grade teacher is not sufficient in most cases. Most regular grade teachers are not sufficiently trained for this kind of observation, and have too many children in the room to study each one individually.

This kind of study, then, means the observation of the child over a long period of time. It may often be necessary to change the kind of treatment and try the effects of other kinds of treatment. Several studies of this kind have been made by the Psychological Department of the University of Pennsylvania. Fannie B. is an example of such a study. The Restoration Class was organized largely for the purpose of studying this type of case.

I believe the schools can very advantageously make these kind of studies. They have the material for it. If restoration cases are to be found anywhere they are to be found in the public schools where the children range from the very bright to the feeble-minded. For this work a clinical psychologist and an experienced and well-trained teacher should work together with the aid of a school nurse or social worker, physicians, clinics etc. If, after a careful clinical examination including the child's whole personal and family history, restoration seemed possible for the child an educational prescription could be made for that child. This prescription could be carried out by the teacher under

